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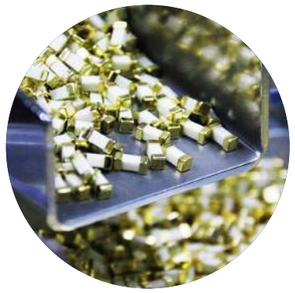

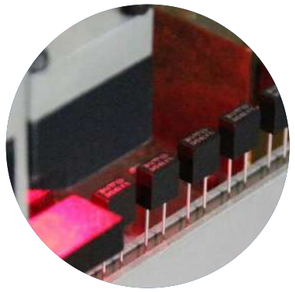

CONQUER

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Product Catalog

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2023/07 Version 37

Go Further.
Go Conquer.

To deliver cutting-edge technology to the market, electronics must be outfitted with dependable circuit protection, and that's precisely why our clients opt for Conquer. With numerous years of knowledge and experience, we proudly stand as the **foremost fuse designer and manufacturer in the Asia-Pacific region.**

No. 1 fuse company in Taiwan

No. 1 global supplier of micro fuses

No. 1 supplier for the global notebook industry

No. 3 supplier in the LCD segment

Improvement

Since 1997, Conquer has continually striven for greater heights - introducing 6 new products each year and accumulating nearly 100 patents in the industry. Yet, this is merely the outset of our journey.

Innovation

Supported by fully automated production facilities, Conquer continues to forge ahead, innovating with new fuses that guarantee the safe advancement of electronics.

Partnerships

As leaders in the electronics industry are competing to make smaller size electronic products to satisfy the needs of customers, they know they can rely on Conquer to deliver excellent circuit protection— included the smallest, most powerful circuits.

A fuse for every application

With tens of fuse products and hundreds of fuse specifications, we protect electric circuits in thousands of different applications. If this isn't enough, we will custom design fuses that are perfectly suited to individual client needs.

Consumer Electronics

Applicable Products:

CQ06LF 23
CQ06LT 24
CQ12LV 25
CQ12LH 26
MMT 50
MST 51
UDA-P 72

Electric Vehicles

Applicable Products:

LTCC Chip Fuse Series 23
SEF(G) 29
SET(G) 30
SEH(G) 31
UDA-A 74
ABB-A 81
APA-A 85
K6F 89
K8F/K8F-A 92
EVS 93
BMC 97

Lighting

Applicable Products:

CQ06LF 23
CQ06LT 24
SET(G) 30
MMT 50
MST 51
UDE/UDE-A 75

Telecom

Applicable Products:

SEF(G) 29
SET(G) 30
SEH(G) 31
UBM 69
UBM-A 70
UBF/UBF-A 71
AXT/AXT-A 77
AMC 96

Home Appliances

Applicable Products:

CQ06LF 23
CQ06LT 24
CQ12LI 27
MST 51
UBM-A 70
UDA 73
UDA-A 74
UXT 76

Power Tools

Applicable Products:

CQ06LF 23
MMS-P 36
28MH 37
UBM-A 70
UDA 73
UDA-A 74

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Pg.	Series Name	Size	F/T	Current Rating (Amps)	Voltage Rating (Volt)		Agency Approvals																
					AC	DC																	
Surface Mount Fuses — LTCC Chip																							
23	CQ06LF	1.6 x 0.8 x 0.8 mm	F	1-8A	-	32/63V				V					V								
24	CQ06LT	1.6 x 0.8 x 0.8 mm	T	1-8A	-	32/63V				V					V								
25	CQ12LV	3.1 x 1.6 x 0.9 mm	F	1-20A	-	24/63/125V				V					V								
26	CQ12LH	3.1 x 1.6 x 0.9 mm	T	1-20A	-	24/63/125V				V					V								
27	CQ12LI	3.1 x 1.6 x 0.9 mm	F	10-30A	-	24/36/48/63V				V													
Surface Mount Fuses — SMD																							
29	SEF(G)	6.1 x 2.6 x 2.6 mm	F	0.062-40A	65/86/125V	65/86/125V		V		V			V			V							
30	SET(G)	6.1 x 2.6 x 2.6 mm	T	0.2-7A	125V	125V			V				V			V							
31	SEH(G)	10.1 x 3.1 x 3.1 mm	-	20-30A	125V	-				V					V								
32	SEI(G)	10.1 x 3.1 x 3.1 mm	-	0.5-5A	250V	-				V				V		V		V					
33	SEJ	10.1 x 3.1 x 3.1 mm	T	1.25A	280V	250V				V					V	V	V	V					
34	SEL	10.1 x 3.1 x 3.1 mm	-	10-60A	250V	-				V					V								
35	SEM	10.1 x 3.1 x 3.1 mm	-	0.5-2A	600V	-				V					V								
36	MMS-P	7.3 x 5.8 x 4.0 mm	-	20-50A	-	35/60V				V					V								
37	28MH	7.3 x 5.8 x 4.0 mm	-	20-125A	-	80V				V					V								
Subminiature Fuses																							
39	MCT	8.35 x 3.95 x 5.0 mm	T	1-6.3A	250/300/400V	250V				V					V	V	V	V					
40	PFP	2.7Ø x 7.1 mm	F	0.125-15A	32/125V	32/125V				V					V	V			V				
41	PSP	2.7Ø x 7.1 mm	T	0.5-5A	125V	125V				V						V							

Pg.	Series Name	Size	F/T	Current Rating (Amps)	Voltage Rating (Volt)		Agency Approvals																
					AC	DC																	
Subminiature Fuses																							
42	PMP	2.7Ø x 7.1 mm	T	0.375-7A	250V	125V				V						V							
43	PBS/PBP	3.6Ø x 10 mm	F	0.1-8A	250V	-	V						V										
44	PTS/PTP	3.6Ø x 10 mm	T	0.1-5A	250V	-	V						V										
45	PBU	3.6Ø x 10 mm	F	0.5-6.3A	250V	-			V			V		V			V		V				
46	PTU	3.6Ø x 10 mm	T	0.25-6.3A	250V	-			V			V		V			V		V				
47	MEF	8.35Ø x 7.7 mm	F	0.05-6.3A	250V	-			V		V	V		V		V			V				
48	MET	8.35Ø x 7.7 mm	T	0.05-10A	250/277V	-			V		V	V		V	V	V	V		V				
49	MSF	8.35 x 4.3 x 7.7 mm	F	0.05-6.3A	250V	-			V			V		V		V			V				
50	MMT	8.35 x 3.95 x 5.0 mm	T	0.05-6.3A	250/300/400V	250V				V					V	V	V		V				
51	MST	8.35 x 4.3 x 7.7 mm	T	0.05-10A	250/300/400/500V	250V			V	V		V		V	V	V	V	V	V				V
Axial Lead & Cartridge Fuse																							
53	SGS/SGP-A	4.5Ø x 14.5 mm	F	0.1-3.5A	125/250V	-	V						V			V							
54	SMP-A	4.5Ø x 14.5 mm	F	1-8A	350V	140V		V		V													
55	SDL/SDP-A	4.5Ø x 14.5 mm	T	0.1-8A	125/250V	-	V		V				V			V							
56	SCF/SCF-A	4.5Ø x 14.5 mm	F	1-8A	125/250/350V	-		V															
57	SCD/SCD-A	4.5Ø x 14.5 mm	T	1-8A	125/250/350V	-		V															
58	GFE/GFP-A	5.2Ø x 20 mm	F	0.2-10A	125/250V	-	V						V			V							
59	GTE/GTP-A	5.2Ø x 20 mm	T	0.5-10A	125/250V	-	V						V	V		V	V						
60	GSL/GST-A	5.2Ø x 20 mm	T	0.6-8A	125/250V	-	V						V			V							
61	GBF/GBF-A	5.2Ø x 20 mm	F	16-20A	250V	-				V													
62	GBM/GBP-A	5.2Ø x 20 mm	F	0.1-15A	125/250V	-	V						V	V		V							
63	GDA/GPA-A	5.2Ø x 20 mm	T	1-20A	125/250V	-	V						V	V		V	V						
64	UFE/UFE-A	5.2Ø x 20 mm	F	0.16-10A	250V	-			V		V			V		V	V	V	V	V			
65	USL/USL-A	5.2Ø x 20 mm	T	0.125-0.4A	250V	-			V		V			V			V		V	V			
66	UTE/UTE-A	5.2Ø x 20 mm	T	0.5-16A	250V	-			V	V	V			V	V	V	V	V	V	V			
67	UDL/UDL-A	5.2Ø x 20 mm	T	0.5-10A	250V	-				V	V								V				
68	UBM-P	5.2Ø x 20 mm	F	1-10A	250V	-				V					V	V	V		V				
69	UBM	5.2Ø x 20 mm	F	0.1-16A	250V	-			V	V	V			V	V	V	V	V	V	V			V
70	UBM-A	5.2Ø x 20 mm	F	0.1-16A	250/277V	-			V	V	V			V	V	V	V	V	V				V

Pg.	Series Name	Size	F/T	Current Rating (Amps)	Voltage Rating (Volt)		Agency Approvals																
					AC	DC																	
Axial Lead & Cartridge Fuse																							
71	UBF/UBF-A	5.2Ø x 20 mm	F	8-25A	420/500/600V	420/450V				V					V								
72	UDA-P	5.2Ø x 20 mm	T	1-10A	250V	-				V					V	V	V		V				
73	UDA	5.2Ø x 20 mm	T	0.5-25A	250V	-			V	V	V	V		V	V	V	V		V	V		V	
74	UDA-A	5.2Ø x 20 mm	T	0.5-25A	250V	-			V	V	V	V		V	V	V	V		V			V	
75	UDE/UDE-A	5.2Ø x 20 mm	T	0.5-25A	500V	500V				V					V								
76	UXT	6.3Ø x 25.4 mm	-	3-13A	240V	-													V		V		
77	AXT/AXT-A	6.3Ø x 25.4 mm	T	1-50A	60/125/250V	60/125V				V													
78	AFE/AFP-A	6.3Ø x 32 mm	F	0.5-30A	32/125/250V	-	V		V				V			V							
79	ATE/ATP-A	6.3Ø x 32 mm	T	0.5-8A	125/250V	-	V						V			V							
80	ADL/ADP-A	6.3Ø x 32 mm	T	0.2-30A	32/125/250V	-	V			V			V			V							
81	ABB/ABB-A	6.3Ø x 32 mm	F	1-30A	500V	500V				V													
82	ABE	6.3Ø x 32 mm	F	0.1-40A	125/250V	125/250V	V		V	V			V	V		V							
83	ABP-A	6.3Ø x 32 mm	F	0.1-30A	125/250V	125/250V	V		V	V			V	V		V							
84	ABF/ABF-A	6.3Ø x 32 mm	F	10-30A	450/500V	250/500/600V				V					V								
85	ADA/APA-A	6.3Ø x 32 mm	T	0.1-30A	125/250V	125V	V		V	V			V	V		V							
86	AUE	10.3Ø x 38.1 mm	-	0.5-60A	32/250V	-	V		V	V			V										
86	AUB	10.3Ø x 38.1 mm	-	0.5-80A	250/500/600V	-																	
Power Fuse																							
89	K6F/K6F-R	10Ø x 38 mm	-	6-30A	600V	600V		V							V			V					
90	KSF/KSF-R	10Ø x 38 mm	-	10-30A	-	1000V		V															
91	K5F	35.0Ø x 78.0 mm 50.0Ø x 83.0 mm	-	225-700A	500V	500V				V									V				
92	K8F/K8F-A	24.1Ø x 91.6 mm 35.2Ø x 95.0 mm	-	50-400A	800V	800V				V													
93	EVS	10Ø x 38 mm	-	10-50A	-	500V																	
94	AUC	10.4Ø x 38.5 mm	-	25-70A	250/500V	125V				V													
95	ALC	14.6Ø x 38.5 mm	-	25-90A	250/600V	125V				V													
96	AMC	14.6Ø x 22.3 mm	-	30-100A	-	170V				V													
97	BMC	17.4Ø x 42 mm	-	25-180A	240V	150V				V									V				

Product Cross-Reference Chart

Prodoct Line	Product Model	Bussmann	Littlefuse	Bel Fuse	Schurter	AEM	Daito
Surface Mount Fuse - LTCC Chip Fuse	**CQ06LF**	0603HV, CC06FA, 0603FA	438	C2F	USF 0603	QF0603G, QF0603F, F0603FF, F0603FA	-
	CQ06LT	CC06H	-	C2Q	-	QF0603H, F0603SB	-
	CQ12LV	CC12H, 3216FF	437, 466	CH1, 0865P	MGA-A, MGA-S, USF1206, USI1206	QF1206G, QF1200F, F1206FA, F1206HI	-
	CQ12LH	CC12H, 3216TD	469	C1S	UST 1206, UAI 1206	QF1206H, F1206SB, F1206VH	-
	CQ12LI	CC12H	501	0685P	-	F1206HB, F1206HC	-
Surface Mount Fuse - SMD	**SEF(G)**	CB61F, 6125FF, 2410FA	451, 453	SSQ	MKF, OACA	QA1206F, AFZ	-
	SET(G)	6125TD, 2410TD	452, 454	SST	MKT (7x2.54)	-	-
	SEH(G)	-	456	-	-	-	-
	SEI(G)	1025TD	443	UMTS	-	-	-
	SEJ	-	443E	-	UMT 250	-	-
	SEL	1025HC	-	0678L	-	QA240F	-
	SEM	TCP	461	SMP	-	-	-
	SDA	-	-	-	UMT-H	-	-
Subminiature Fuse	**MET**	SR-5H	0663(LT5)	MRT	MST 250	-	-
	MST	SS-5	392, 400	RSTA, RST / 0697H, 0697W	FRT 250T (11.5x5)	-	-
	MSF	PC-TRON / SS5F	808	0698Q	FRT250F (11.5x5)	-	-
	PTU	-	677	-	SPT 3.6x10	-	-
Axial Lead & Cartridge Fuse	**SMP-A**	-	-	3JQ	-	-	-
	UDL-A	S508-V	219XA	5ETP	-	-	-
	UBM-P	-	216SP	-	-	-	-
	UBM	S501	216	5HF	SP 5x20	-	-
	UBM-A	S501-V	216XE	5HFP	SP 5x20 Pigtail	-	-
	UBF	-	487	-	-	-	-
	UBF-A	-	487XE	-	-	-	-
	UXF / UXF-A	-	405	-	-	-	-
	UDA-P	S505-SC	215SP	-	-	-	-
	UDA-A	S505-V	215XE	5HTP	SPT 5x20 Pigtail	-	ES5R
	UDE	-	477	-	-	-	-
	UDE-A	-	477XE	-	-	-	-
	UXT	TDC180	-	-	-	-	-
	AXT	TCP70	688	-	-	-	-
	ABE	ABC	314	3AB	-	-	HA2
	ABP-A	ABC-V	324	3ABP	-	-	HA1, HC
	ABF	-	505	-	-	-	-
	ADA	MDA	326	GSA	-	-	-
	APA-A	MDA-V	325	GSAP	-	-	-
	ACF	-	527	-	-	-	-
Power Fuse	**K6F/K6F-R**	PVM	KLKD, LVSP	0ALE	-	-	-
	KSF/KSF-R	PV	SPF	0AKL	ASO	-	-
	K5F	FWH	L50QS	-		-	-
	K8F/K8F-A	FWP	L75QS	-	-	-	-
	EVS	EV-10	HEV	0ALE	-	-	-
	AUC	-	606	-	-	-	GAC
	ALC	-	-	-	-	-	LAC
	AMC	TPS	TLS	-	-	-	
	BMC	LET	-	-	-	-	-
	QEV24	EVK25 / EVK30	EV1K				

Fuse Reference Guide

About Fuses

Fuses protect electronic and electrical equipment from overload current damage. Under normal circumstances, current flows through the circuit until excessing the specification of fuse, at which time the fuse blows and cuts off the current.

保險絲

何謂保險絲？它們是防止電子及電器設備受到過載電流傷害的保護者。當電流經由保險絲流入電路直到超過保險絲的規格時，保險絲會熔斷且停止電流 運作。

Fuse Types

Time Lag Fuses

Time Lag fuses are suitable for circuits with a transient surge or power-on inrush, which includes motors, transformers, incandescent lamps and capacitate loads.

Quick-Acting / Fast-Acting Fuses

Fast-acting fuses are not time lag characteristic and are used in circuits without transient inrush currents

保險絲的類型

慢速熔斷型 / 時間延遲型保險絲

慢速熔斷型保險絲非常適合用於含有瞬間電流突波或開機突波流入的電路。這些電路包含：馬達、變壓器、白熾燈及可適用負載的裝置。

快速反應型保險絲

快速反應型保險絲非慢速熔斷特性且使用於沒有瞬間突波電流的電路。

Fuse Selection Guide

A fuse needs to be able to carry the normal current load of a circuit, without the occurrence of abnormal open circuit events. In case of an overload event, however, the fuse must be able to interrupt the overcurrent, limit the energy flow, and withstand the arcing between terminals. To properly select a fuse, the following factors must be considered:

- Normal operating current (the current rating of a fuse is typically derated 25% for operation at 25°C to avoid nuisance blowing. For example, a fuse with 10 A current rating is not usually recommended for operation at more than 7.5 A after considering 25% derating)
- Overload current and melting time of the fuse
- Application voltage (AC or DC voltage)
- Inrush currents, surge currents, pulses, and/or start-up currents
- Ambient temperature
- Safety certification(i.e. UL, CSA , etc.)
- Other considerations: Shape, dimension, installation (surface mount or through hole...)

保險絲參考指南

保險絲應能承載電路的正常電流負載，不會出現異常開路情況。但是，當出現過載情況時，保險絲應能切斷過載電流，限制能量流，同時能有效抵抗端子之間的電弧放電。想要正確選擇保險絲，必須考慮以下因素：

- 正常工作電流（在 25°C 溫度下運作時，保險絲的額定電流通常會降低 25%，以避免影響熔斷。例如，額定電流為 10A 的保險絲，在考慮存在 25% 降額時，通常不建議在 7.5A 以上的電流條件下使用。
- 保險絲的過載電流和熔斷時間
- 適用電壓（交流或直流電壓）
- 浪湧電流、突波電流、脈衝及／或啟動電流
- 環境溫度
- 安全認證（即 UL、CSA 等）
- 其他考量因素：形狀、尺寸、安裝方式（表面貼裝或通孔…）

Ambient Temperature

The current carrying capacity of fuses is tested at 25 °C. Any deviations in ambient temperature will affect current carrying capacity. The higher the ambient temperature, the shorter life of the fuse. Conversely, fuses operating at low temperatures will exhibit a longer fuse life.

環境溫度

保險絲的載流能力是在 25°C 標準溫度下測量。環境溫度與標準溫度有任何偏差時，都會影響保險絲的載流能力，且環境溫度越高，保險絲的使用壽命越短，反之，保險絲在低溫下工作，使用壽命較長。

Normal Current Conditions

UL type fuse

$$\text{Catalog Fuse Rating} = \frac{\text{Nominal Operating Current}}{\text{0.75 x temperature de-rating}}$$

for example

$$\frac{\text{3.56 Amperes}}{\text{0.75 x 0.95}} = \text{5 Amperes Fuse (at 80 °C)}$$

IEC type fuse

$$\text{Catalog Fuse Rating} = \frac{\text{Nominal Operating Current}}{\text{Temperature de-rating}}$$

CHART SHOWING EFFECT OF AMBIENT TEMPERATRE ON CURRENT-CARRYING CAPACITY

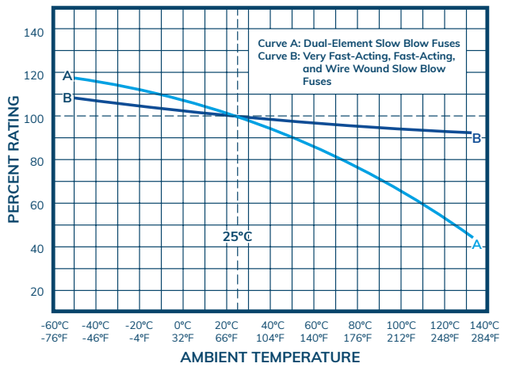
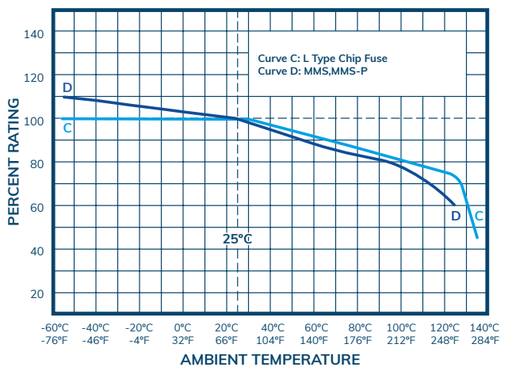


CHART SHOWING EFFECT OF AMBIENT TEMPERATRE ON CURRENT-CARRYING CAPACITY



正常的電流狀態

符合 UL 規範類型的保險絲：

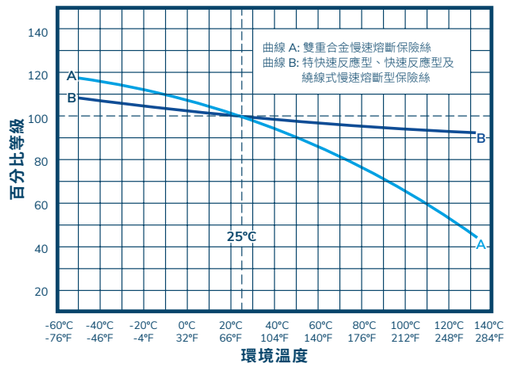
$$\text{保險絲最大的降額定電流 (In)} = \frac{\text{工作電流值}}{\text{溫度因素 x UL 規範的極限 (固定為 0.75)}}$$

$$\frac{\text{3.56 Amperes}}{\text{0.75 x 0.95}} = \text{5 Amperes Fuse (at 80 °C)}$$

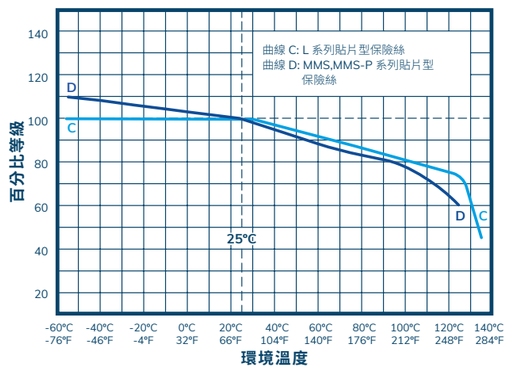
符合 IEC 規範類型的保險絲：

$$\text{保險絲最大的降額定電流 (In)} = \frac{\text{工作電流值}}{\text{溫度因素}}$$

正常電流負載量情況下環境溫度的影響



正常電流負載量情況下環境溫度的影響



Breaking Capacity

The maximum fault-current at which the fuse can safely open at the rated voltage. For safe operation, it is prohibited to damage the structure of fuse.

分斷能力

保險絲在額定電壓下可以安全斷開的最大故障電流。為確保使用安全，請勿損壞保險絲的外部結構。

Voltage Rating

For general circuit protection, the voltage rating of the circuit needs to be equal to or less than the voltage rating of the fuse. If a fuse is used in a circuit with a voltage exceeding the voltage rating of the fuse, it will reduce the fuse's ability to safely interrupt a fault current. For example, fuses with a 250V rating can be used at voltages of less than 250V.

額定電壓

在一般的電路保護方面，電路的額定電壓僅需要等於或小於保險絲的額定電壓即可。如果保險絲所在電路的電壓超過保險絲額定電壓時，會降低保險絲安全切斷故障電流的能力，例如，額定電壓為 250V 的保險絲，可以在低於 250V 的電壓下使用。

Ampere Squared Seconds, I^2t

This is the measure of heat energy developed within a circuit during the fuse blow. There are "melting I^2t", "arcing I^2t" and the sum of them "clearing I^2t". "I" is the effective let-through current (RMS), and "t" means melting time (seconds).

安培平方秒，I^2t

保險絲熔斷時，電路內產生熱能的測量值。包含“熔斷 I^2t ”、“電弧 I^2t ”、以及二者的總和“清除 I^2t ”。“ I ” 是指有效的通過電流 (RMS)，“ t ” 表示熔斷時間 (秒)。

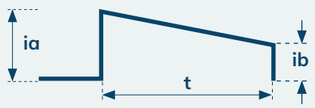
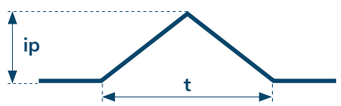
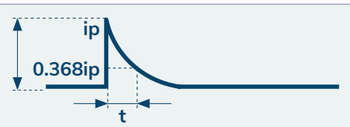
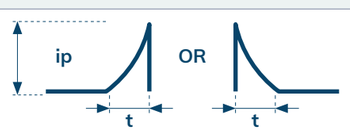
Calculating Pulse I²t

The energy contained in a current pulse depends on the waveform shape, peak current and duration of pulse. Determining the energy contained in a particular waveform can be very difficult. Table 1 presents a variety of waveforms and the I²t calculation formula of the corresponding waveforms. Current pulses in most applications can be approximated by one of the waveforms in Table 1. For a complex waveform, it could be separated into several simple waveforms. The estimation of a complex waveform's I²t is the sum of the several simple waveform's I²t.

計算脈衝 I²t

電流脈衝含有的能量大小，取決於電流脈衝波形的形狀、峰值電流以及持續時間。測量特定波形含有的能量可能非常困難，表 1 列出各種波形及其對應的 I²t 計算公式。大多數應用對應的電流脈衝可依據表 1 的其中一個波形進行近似計算，而複雜波形，則可分成幾個簡單的波形。複雜波形 I²t 的估算值為多個簡單波形 I²t 的總和。

Table 1. Waveform I^2t formula

Waveforms 波形	Joule-integral Values 焦耳積分值
① 	$I^2t = \frac{1}{3}(ia^2+iaib+ib^2)t$
② 	$I^2t = \frac{1}{3}ip^2t$
③	$I^2t = \frac{1}{2}ip^2t$
④	$I^2t = ip^2t$
⑤ 	$I^2t = \frac{1}{2}ip^2t$
⑥ 	$I^2t = \frac{1}{5}ip^2t$

Pulse Cycle Withstand Capability

100,000 Pulses

Pulse $I^2t \leq 22\%$ of nominal melting I^2t

10,000 Pulses

Pulse $I^2t \leq 29\%$ of nominal melting I^2t

1,000 Pulses

Pulse $I^2t \leq 38\%$ of nominal melting I^2t

100 Pulses

Pulse $I^2t \leq 48\%$ of nominal melting I^2t

突波循環抵抗能力

量測脈衝 I²t 的值小於 / 等於保險絲熔斷 I²t 數值的 22% 時，該保險絲可承受高達 100,000 次的脈衝突波。

量測脈衝 I²t 的值小於 / 等於保險絲熔斷 I²t 數值的 29% 時，該保險絲可承受高達 10,000 次的脈衝突波。

量測脈衝 I²t 的值小於 / 等於保險絲熔斷 I²t 數值的 38% 時，該保險絲可承受高達 1,000 次的脈衝突波。

量測脈衝 I²t 的值小於 / 等於保險絲熔斷 I²t 數值的 48% 時，該保險絲可承受高達 100 次的脈衝突波。

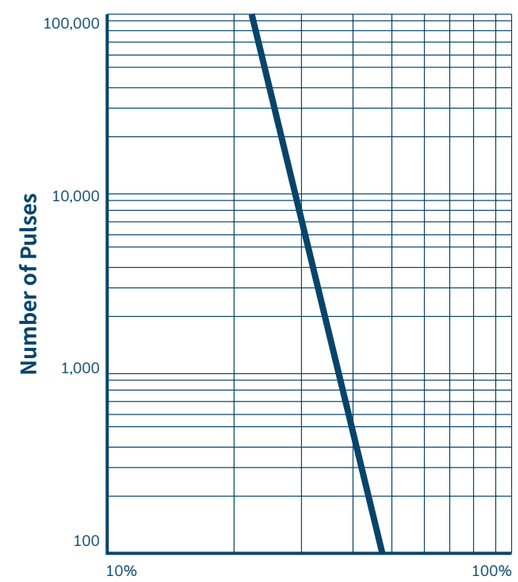
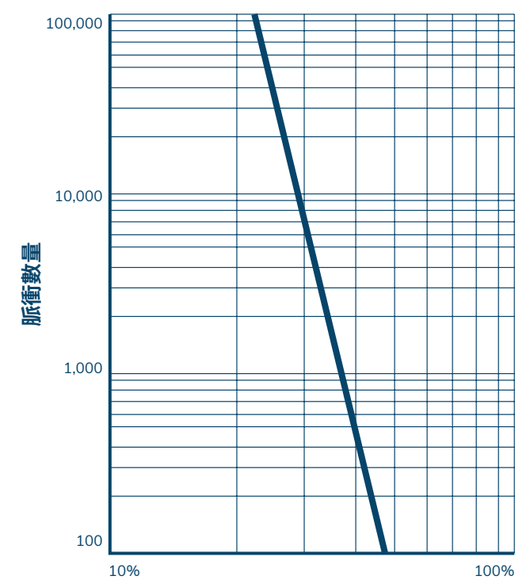


Table 2. Pulse I²t / Average Melting I²t



表格 2. 脈衝 I²t / 平均熔斷 I²t

Note: Adequate time (10 seconds) must exist between pulse events to make heat from the previous event to dissipate.

註釋：從消散先前事件提供的熱到脈衝事件之間須存在足夠的時間 (10 秒)。

Example:

MST, as an example, is capable of withstanding 100,000 pulse cycles. The normal operating current is 2 A at an ambient temperature of 25°C. The waveform is shown in Figure 1.

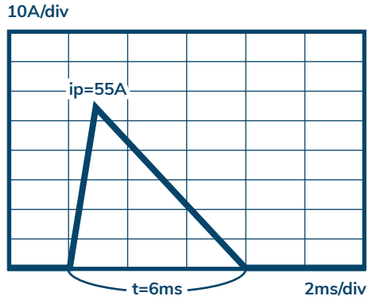


Fig 1 waveform of pulse

Answer:

Step 1:

Refer to table 1 and select suitable pulse waveforms and formulas to calculate I^2t.

$I^2t = 1/3\ (ip)^2\ t$

$= 1/3 \times (55)^2 \times 6 \div 1000$

$= 6.05\ A^2\ Sec$

This value is referred to as the "Pulse I^2t"

Step 2:

Refer to table 2 to determine the nominal melting I^2t (100,000 pulses). Recall that "Pulse I^2t=22% of Nominal Melting I^2t. Therefore:

Nominal Melting I^2t = Pulse $I^2t \div 0.22$

$= 6.05 \div 0.22$

$= 27.5\ A^2\ Sec$

Step 3:

Check the I^2t rating data for the time lag radial lead micro fuse. The I^2t of part number MST002 (rating 2A) is 36 A^2sec, which is the minimum fuse rating that is higher than the 27.5 A^2sec calculated in Step 2.

例題：

選擇保險絲的類型：MST 擁有可以抵抗 100,000 次的脈衝循環。正常工作電流為 2A 在環境溫度為 25°C 且其波形如下圖 1 所示。

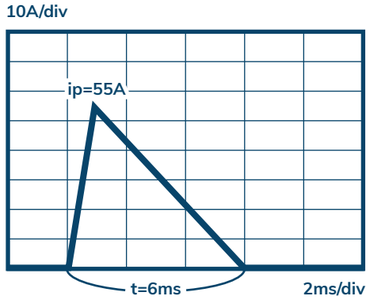


圖 1 脈衝波型

解答：

步驟 1.

參考表格 1 並選擇合適的脈衝波形及相對應的公式來計算 I^2t。

$I^2t = 1/3\ (ip)^2\ t$

$= 1/3 \times (55)^2 \times 6 \div 1000$

$= 6.05\ A^2\ Sec$

此數值被稱為 " 脈衝 I^2t "。

步驟 2.

參考表格 2 決定保險絲的熔斷 I^2t。量測脈衝 I^2t 的值為保險絲熔斷 I^2t 數值的 22% 時，該保險絲可承受高達 100,000 次的脈衝突波。所以：

保險絲的 I^2t = Pulse $I^2t \div 0.22$

$= 6.05 \div 0.22$

$= 27.5\ A^2Sec$

步驟 3.

檢查微型保險絲時間延遲型的 I^2t 等級數據。MST 部分，2 安培設計在 36 A^2 Sec, 的等級，可容納步驟 2 所計算出的 27.5 A^2 Sec 為保險絲的最小等級。

Purchasing Information

Conquer

Circuit protection requires a combination of fuses and fuse accessories. We will provide you suitable combinations according to your needs. For example, fuses without a lead wire to connect with a PCB will require a fuse clip or fuse holder. These accessories can be easily changed or fixed. For fuse holders, the maximum energy dissipation (temperature increases) must be considered. Special attention needs to be paid to the maximum ambient temperature of the fuse holder, and conditions for temperature increase.

功得

最新型保險絲及保險絲配件結合電路保護設計。我們會 依據您不同的需求提供最有利的組合。例如：一個保險絲夾或保險絲座適用於管狀保險絲無引腳型式與 PCB 板 連接，方便使用者更新與替換。 保險絲座的選擇必須考慮到最大能量散熱 (本體溫升) 的 應用及架設時必須特別檢查，關於在最大的環境溫度下保險絲座的溫升條件。 想了解更詳細的保險絲連接選用資訊及應用請諮詢我們。

Return of Goods

Return of unused merchandise is permitted within 30 days of shipment. The party returning the goods is responsible for freight and duty costs. A returning fee of 15% will be charged to the original sales price (minimum of USD 100). Please consult with the sales department for authorization prior to returning merchandise for credit or replacement. An authorization number must appear on all packages returned, or they will not be accepted.

We guarantee defective products within a reasonable period of time after delivery. We are only liable for replacing defective material. Sellers or manufacturers should be liable for any injury, loss or damage, direct or consequential, rising out of the use of or the inability to use the products. Before using, the user shall determine the suitability of the product for his intended use. The user assumes all risk and liability whatsoever in connection therewith.

Reserves the right to change specifications on any and all items shown in this catalog.

關於退貨

未使用過的商品僅在出貨後 30 天內接受退回並需付清運 費及關稅。退貨服務費用相當於原售價的 15% (最低金額為 100 美元)，在退回商品更換或扣帳前請先與業務部門諮詢並取得同意。授權碼必須註明在要被退回的包裹上，否則將不予接受。

零件在交付後合理的時間內對於材料及製成品上的瑕疵有免費的保固。我們的責任僅限於瑕疵材料的更換。賣方或製造商將對任何的損失或損壞、直接或間接的、對不能使用的那些產品負責。在使用之前，使用者要確定 產品的合適性有無符合該預期的使用，此外使用者須承擔任何有關聯的所有風險及責任。

保有更改目錄上所有任何項目規格的權利。

Standards

UL 248-14 Low-Voltage Fuses for Supplementary Overcurrent Protection (maximum 600V and 60 A)
過電流保護 (600V 為電壓上限)

UL LISTED (USA 美國)

UL Listed fuses are verified to meet all the requirements of the UL Standard. These requirements are based on UL's published standards, in addition to nationally recognized safety standards.
UL 已對代表性樣品進行了測試，並確定其符合 UL 的要求。
而這些要求通常是於基於 UL 公佈的以及國家認可的安全標準。

Current Rating In (A) 保險絲額定電流	Test Current	電流 (%)	Overload Maximum Clearing Time	
			MIN	MAX
≤30 A	1 In	100	4 hr	
	1.35 In	135		1 hr
	2 In	200		2 min (Micro fuses 1 min)
31 A~60 A	1 In	100	4 hr	
	1.35 In	135		1 hr
	2 In	200		4 min

A UL listed fuse with a voltage rating of 125 V has a minimum interrupting rating of 10,000 A. A fuse with a voltage rating of 250 V may have a dual interrupting rating: 125 V at 10,000 A, or 250 VAC at a minimum interrupting rating, as specified in the following table.

UL LISTED 所列的保險絲分斷能力 125Vac 至少測試電流為 10,000A。 當申請保險絲額定電流為 250Vac，至少需通過 10,000A 125Vac 的分斷測試與 250Vac 的試驗電流，如下表所示：

Current Rating In (A) 保險絲額定電流	Minimum Interrupting Rating (A) 分斷電流	Voltage Rating 額定電壓
0 ~ 1	35	250 VAC
1.1 ~ 3.5	100	
3.6 ~ 10	200	
10.1 ~ 15	750	
15.1 ~ 30	1500	

UL Recognized (USA 美國)

UL Recognized components or materials are tested and verified for use in a complete product or system. These components are intended for use in final products that may be eligible for UL certification.

檢測認證零組件或非成品，而這些元件將會運用未來將申請 UL 列名認證服務的產品或系統中。

CSA Certification (Canada 加拿大)

A CSA Certified product has been tested to meet the certification requirements for electrical, plumbing and/or mechanical products.

該產品已經過測試，符合電氣，配管和 / 或機械產品的認證要求。

CSA Acceptance (Canada 加拿大)

A CSA Accepted product has been tested and verified to meet the certification requirements for a component product.

該產品已經過測試，符合零組件產品的認證要求。

Electrical Appliance and Material Safety Law (Japan)
電氣用品安全法 (日本)

PSE Mark (Japan 日本)

Japan's Ministry of Economy, Trade and Industry (METI) established the Electrical Appliance and Material Safety Law to regulate electronic and electrical product safety.

電氣用品安全法由日本經濟產業省 (METI) 制定，旨在規範電子電氣產品的安全。

International Electrotechnical Commission (IEC)

國際電工委員會 (IEC)

The IEC 60127 series (miniature fuses) is subdivided into parts 1-10.

IEC 60127 defines three breaking capacity levels:

1) Low breaking capacity fuses — must pass a test of either 35 A or 10 times the rated current (whichever is greater)
2) Enhanced breaking capacity fuses—must pass a test of 150 A
3) High breaking capacity fuses—must pass a test of 1500 A

IEC 60127 Part 2 includes the following sheets:

Sheet 1 — Type F Quick Acting, High Breaking Capacity (5 mm x 20 mm)

Sheet 2 — Type F Quick Acting, Low Breaking Capacity (5 mm x 20 mm)

Sheet 3 — Type T Time-Lag, Low Breaking Capacity (5 mm x 20 mm)

Sheet 4 — Type F Quick Acting, Low Breaking Capacity (6.3 mm x 32 mm)

Sheet 5 — Type T Time-Lag, High Breaking Capacity (5 mm x 20 mm)

Sheet 6 — Type T Time-Lag, Enhanced Breaking Capacity (5 mm x 20 mm)

Sheet 7 — Type F Quick Acting, Enhanced Breaking Capacity (6.3 mm x 32 mm)

Sheet 8 — Type T Time-Lag, Enhanced Breaking Capacity (6.3 mm x 32 mm)

Sheet 9 — Type F Quick Acting, High Breaking Capacity (6.3 mm x 32 mm)

Sheet 10 — Type T Time-Lag, High Breaking Capacity (6.3 mm x 32 mm)

IEC 60127 標準 (小型保險絲)，區分為第一至第十部分

IEC 60127 標準，定義了三種分斷能力等級 :

1) 低分斷能力保險絲 (符號：L)：必須通過 35A 或 10 倍額定電流的測試，取其中最大為準。
2) 增強分斷能力保險絲 (符號：E)：必須通過 150A 的測試。
3) 高分斷能力保險絲 (符號：H)：必須通過 1500A 的測試。

IEC 60127 第二部分包含以下表單：

Sheet 1 — 快速動作，高分斷能力 (5 mm x 20 mm)

Sheet 2 — 快速動作，低分斷能力 (5 mm x 20 mm)

Sheet 3 — 慢速動作，低分斷能力 (5 mm x 20 mm)

Sheet 4 — 快速動作，低分斷能力 (6.3 mm x 32 mm)

Sheet 5 — 慢速動作，高分斷能力 (5 mm x 20 mm)

Sheet 6 — 慢速動作，增強分斷能力 (5 mm x 20 mm)

Sheet 7 — 快速動作，增強分斷能力 (6.3 mm x 32 mm)

Sheet 8 — 慢速動作，增強分斷能力 (6.3 mm x 32 mm)

Sheet 9 — 快速動作，高分斷能力 (6.3 mm x 32 mm)

Sheet 10 — 慢速動作，高分斷能力 (6.3 mm x 32 mm)

IEC 60127 Part 3 includes the following sheets:

Sheet 1—Type F, Low Breaking Capacity (50 A)

Sheet 2—Type F, Low Breaking Capacity (50 A)

Sheet 3—Type F, Low Breaking Capacity (35 A or 10 In, whichever is greater)

Sheet 4—Type T, Low Breaking Capacity (35 A or 10 In, whichever is greater)

'Type F' and 'Type T' represent fast-acting and time delay, respectively.

IEC 60127 第三部分，定義了一種分斷能力等級 (Breaking capacity)，

Sheet 1— 快速動作，低分斷能力 (50A)

Sheet 2— 快速動作，低分斷能力 (50A, 尺寸與 Sheet 1 有差異)

Sheet 3— 快速動作，低分斷能力 (35A or 10In, whichever is greater)

Sheet 4— 慢速動作，低分斷能力 (35A or 10In, whichever is greater)

快速動作符號：F，慢速動作符號：T

IEC 60127 Part 4 defines three breaking capacity levels:

IEC 60127 第四部分，定義了三種分斷能力等級 (interrupting rating)，

Interrupting Rating **分斷能力類型**	**Voltage Rating (A)** **測試電壓**	**Interrupting Rating (A)** **測試電流**
Low Breaking Capacity 低分斷能力	12.5~63 V	35 A or 10 In (10 倍額定電流)
	125 V	50 A or 10 In (10 倍額定電流)
	250 V	100 A
Intermediate Breaking Capacity 中分斷能力	250 V	500 A
High Breaking Capacity 高分斷能力	250 V	1500 A

The IEC 60127 standard specifies that fuses shall not open at 1.25 times the rated current within 1 hour (after the endurance test), and should open at 2 times the rated current within 2 minutes. An overload at 10 times the rated current is used to determine the fuse characteristic. The opening time for different fuse characteristics is listed in the table on the right.:

而保險絲電流特性，在 125% 電流下，通電 1 小時不能熔斷，在 200% 電流下，需在 2 分鐘內熔斷，在 1000% 電流下，依據特性，列出以下類型評級

Type 類型	Pre-Arcing Time 熔斷時間
FF	Less than (小於) 0.001 s
F	0.001 s to 0.01 s
T	0.01 s to 0.1 s
TT	0.1 s to 1.0 s

A Comparison Chart for the Opening Time of Different Standards, Ranging from 100% to 210% of Current Ratings

UL & CSA 248-14 與 IEC 60127 (第二部分) FUSE 與 PSE 電氣要求差異

Percent of Current Rating 電流百分比(%)	UL & CSA 248-14	IEC Type F Sheet 1 IEC 快速動作 Sheet 1	IEC Type F Sheet 2 IEC 快速動作 Sheet 2	IEC Type T Sheet 3 IEC 慢速動作 Sheet 3	IEC Type T Sheet 5 IEC 慢速動作 Sheet 5	PSE
100	4 hrs (min)					
130						1 hr (min)
135	1 hr (max)					
150		1 hr (min)	1 hr (min)	1 hr (min)	1 hr (min)	
160						1 hr (max)
200	2 minutes (max)					2 minutes (max)
210		30 minutes (max)	30 minutes (max)	2 minutes (max)	30 minutes (max)	

Note 1:
IEC Specification: The rated current for fuses can reach up to 10 A

備註 1：
IEC 規範，保險絲的額定電流最大到 10A

Note 2:
IEC has opening time requirements at 275%, 400%, and 1000%;, which are not listed in the chart. The purpose of the chart is to demonstrate that fuses with the same ampere ratings at different specifications are not interchangeable

備註 2：
IEC 規範有定義 275%、400%、1000% 的要求，表格內並無列出，因主要比較不同的安規，制定的電氣要求不同， 所以相同的額定電流，安規不同不可互換。

UL 248-14 fuses need to consider a 25% derating. For example, a 1 A fuse should not exceed an the operating current of 0.75 A.

UL & CSA 248-14 的保險絲，需考慮 25% 的降額，以 1A 的保險絲，工作電流不應超過 0.75A

Surface Mount Fuse - LTCC Chip Fuse

The patented hollow cavity design offers superb heat resistance and an extremely high interrupting rating, allowing it to withstand a high degree of inrush current.

CQ06LF

1.6 x 0.8 mm x 0.8 mm (0603)

Fast-Acting Fuse

Ideal for use in a wide range of home appliance panels

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	1A - 8A
TUV	1A - 8A

Electrical Characteristics

Ampere Rating	Opening Time			
	1 In	2 In	3 In	10 In
	MIN	MAX	MAX	MAX
1A - 8A	4 hr	5 sec	0.5 sec	0.02 sec

Interrupting Rating

60 amperes at 32V DC
35 amperes at 63V DC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Silver(Ag) / Nickel(Ni) / Tin(Sn) Fuse Element: Silver(Ag)

Packaging

Packaging Option	Quantity
On Tape	4,000 pcs / reel

Catalog Number	Marking	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
CQ06LF 001	H	1A	32V	0.300	0.041
CQ06LF 1.50	K	1.5A		0.130	0.083
CQ06LF 002	N	2A		0.066	0.098
CQ06LF 2.50	O	2.5A		0.038	0.126
CQ06LF 003	P	3A		0.027	0.187
CQ06LF 3.50	R	3.5A		0.020	0.258
CQ06LF 004	S	4A		0.018	0.331
CQ06LF 005	T	5A		0.012	0.570
CQ06LF 006	U	6A		0.009	0.752
CQ06LF 007	V	7A		0.008	1.087
CQ06LF 008	W	8A		0.006	1.472

* Measured at ≤ 10% of rated current at 25° C
* Melting I^2t at 1000% of current rating
* Certified (cRUus) and Customized to 63V
* Application testing is strongly recommended.
* Surface Mount Fuse is a small device designed for secondary protection of circuits used in space constrained applications.

Mechanical Dimensions (mm)

CQ06LT

1.6 x 0.8 mm x 0.8 mm (0603)

Time-Lag Fuse

Specially customized for use in game consoles and controllers

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	1A - 8A
TUV	1A - 8A

Electrical Characteristics

Ampere Rating	Opening Time				
	1 In	2 In		3 In	10 In
	MIN	MIN	MAX	MAX	MAX
1A - 8A	4 hr	1 sec	120 sec	3 sec	0.05 sec

Interrupting Rating

60 amperes at 32V DC
35 amperes at 63V DC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Silver(Ag) / Nickel(Ni) / Tin(Sn) Fuse Element: Silver(Ag)

Packaging

Packaging Option	Quantity
On Tape	4,000 pcs / reel

Catalog Number	Marking	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
CQ06LT 001	H	1A	32V	0.225	0.130
CQ06LT 1.50	K	1.5A		0.085	0.293
CQ06LT 002	N	2A		0.052	0.400
CQ06LT 2.50	O	2.5A		0.040	0.625
CQ06LT 003	P	3A		0.026	1.170
CQ06LT 3.50	R	3.5A		0.022	1.838
CQ06LT 004	S	4A		0.015	2.210
CQ06LT 005	T	5A		0.010	2.500
CQ06LT 006	U	6A		0.007	5.040
CQ06LT 007	V	7A		0.006	5.212
CQ06LT 008	W	8A		0.005	7.680

* Measured at ≤ 10% of rated current at 25° C
* Melting I²t at 1000% of current rating
* Certified (cRUus) and Customized to 63V
* Application testing is strongly recommended.
* Surface Mount Fuse is a small device designed for secondary protection of circuits used in space constrained applications.

Mechanical Dimensions (mm)

CQ06LT

CQ12LV

3.1 x 1.6 x 0.9 mm (1206)

Fast-Acting Fuse

Used in wireless chargers

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	1A - 20A
TUV	1A - 20A

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2.5 In
	MIN	MAX
1A - 20A	4 hr	5 sec

Interrupting Rating

1A - 8A:	100 amperes at 63V DC 50 amperes at 125V DC
10A - 20A:	150 amperes at 24V DC

Product Characteristics

Operating Temperature	-55 °C to 125°C
Material	Body: Ceramic Termination: Silver(Ag) / Nickel(Ni) / Tin(Sn) Fuse Element: Silver(Ag)

Packaging

Packaging Option	Quantity
On Tape	4,000 pcs / reel

Catalog Number	Marking	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
CQ12LV 001	H	1A	63V	0.250	0.090
CQ12LV 1.50	K	1.5A		0.110	0.113
CQ12LV 002	N	2A		0.065	0.160
CQ12LV 2.50	O	2.5A		0.030	0.188
CQ12LV 003	P	3A		0.026	0.225
CQ12LV 3.50	R	3.5A		0.020	0.245
CQ12LV 004	S	4A		0.015	0.320
CQ12LV 005	T	5A		0.010	0.750
CQ12LV 006	U	6A		0.009	0.900
CQ12LV 007	V	7A		0.008	1.470
CQ12LV 008	W	8A		0.007	1.728
CQ12LV 010	10	10A	24V	0.006	3.000
CQ12LV 012	12	12A		0.005	4.320
CQ12LV 015	15	15A		0.004	6.750
CQ12LV 020	20	20A		0.003	16.00

* Measured at ≤ 10% of rated current at 25° C
* Melting I²t at 1000% of current rating
* Certified (cRUus) and Customized up to 125V
* Application testing is strongly recommended
* Surface Mount Fuse is a small device designed for secondary protection of circuits used in space constrained applications.

Mechanical Dimensions (mm)

CQ12LV

CQ12LH

3.1 x 1.6 x 0.9 mm (1206)

Time-Lag Fuse

2014 Taiwan Excellence Award Recipient

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	1A - 20A
TUV	1A - 20A

Interrupting Rating

1A - 8A:	100 amperes at 63V DC 50 amperes at 125V DC
10A - 20A:	150 amperes at 24V DC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Silver(Ag) / Nickel(Ni) / Tin(Sn) Fuse Element: Silver(Ag)

Packaging

Packaging Option	Quantity
On Tape	4,000 pcs / reel

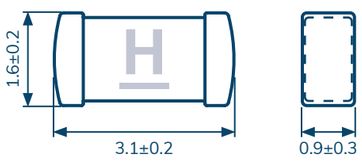
Electrical Characteristics

Ampere Rating	Opening Time				
	1 In	2 In		3 In	8 In
	MIN	MIN	MAX	MAX	MAX
1A - 20A	4 hr	1 sec	120 sec	3 sec	0.05 sec

Catalog Number	Marking	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
CQ12LH 001	H	1A	63V	0.230	0.170
CQ12LH 1.50	K	1.5A		0.125	0.394
CQ12LH 002	N	2A		0.075	0.720
CQ12LH 2.50	O	2.5A		0.050	0.938
CQ12LH 003	P	3A		0.032	1.350
CQ12LH 3.50	R	3.5A		0.027	1.838
CQ12LH 004	S	4A		0.018	2.240
CQ12LH 005	T	5A		0.013	3.000
CQ12LH 006	U	6A		0.009	4.680
CQ12LH 007	V	7A		0.008	6.370
CQ12LH 008	W	8A		0.007	8.320
CQ12LH 010	10	10A	24V	0.006	12.00
CQ12LH 012	12	12A		0.005	17.28
CQ12LH 015	15	15A		0.003	29.25
CQ12LH 020	20	20A		0.002	52.00

* Measured at ≤ 10% of rated current at 25° C
* Melting I²t at 1000% of current rating
* Certified (cRUus) and Customized up to 125V
* Application testing is strongly recommended
* Surface Mount Fuse is a small device designed for secondary protection of circuits used in space constrained applications.

Mechanical Dimensions (mm)



CQ12LH

CQ12LI

3.1 x 1.6 x 0.9 mm (1206)

Fast-Acting Fuse

Widely used in all kinds of battery packs

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	10A - 30A

Interrupting Rating

10A - 25A:	100 amperes at 63V DC 250 amperes at 24V DC
10A - 30A:	200 amperes at 36V DC 150 amperes at 48V DC
30A:	300 amperes at 24V DC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Silver(Ag) / Nickel(Ni) / Tin(Sn) Fuse Element: Silver(Ag)

Packaging

Packaging Option	Quantity
On Tape	4,000 pcs / reel

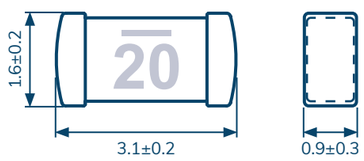
Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	3.5 In
	MIN	MAX
10A - 30A	4 hr	5 sec

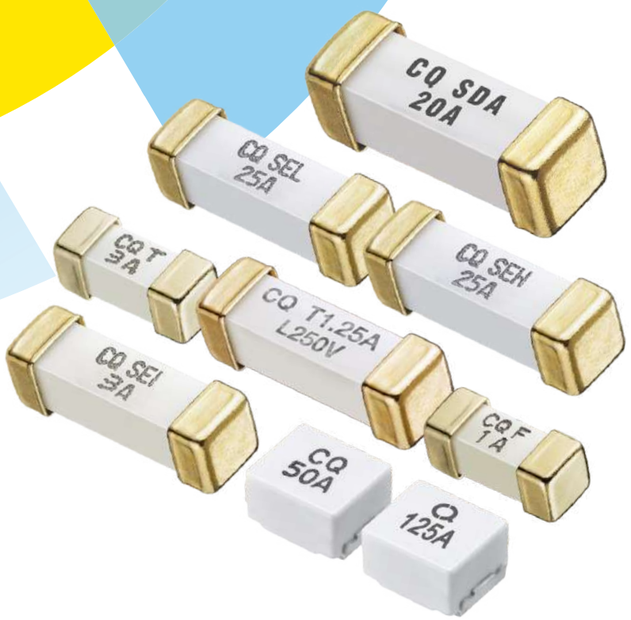
Catalog Number	Marking	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
CQ12LI 010	10	10 A	63V	0.0054	14.0
CQ12LI 012	12	12 A		0.0040	19.0
CQ12LI 015	15	15 A		0.0033	33.0
CQ12LI 020	20	20 A		0.0020	56.0
CQ12LI 025	25	25 A		0.0017	210
CQ12LI 030	30	30 A	48V	0.0013	260

* Measured at ≤ 10% of rated current at 25° C
* Melting I²t at 1000% of current rating
* Surface Mount Fuse is a small device designed for secondary protection of circuits used in space constrained applications.

Mechanical Dimensions (mm)



CQ12LI



Surface Mount Fuse - SMD

The design of wire-in-air structure makes fuses durable and reliable.

SEF(G)

6.1 x 2.6 x 2.6 mm (2410)

Fast-Acting Fuse

Protects base stations from overcurrent damage

RoHS

Agency Approvals

Agency	Ampere Rating
Certified products for U.S. and Canada	62mA - 5A
Recognized Component for Canada and US	6A - 40A
CSA Certified	62mA - 10A
PSE	1A - 10A

Interrupting Rating

62mA - 10A:	50 amperes at 125V AC/DC 300 amperes at 32V DC
12A - 15A:	50 amperes at 65V AC/DC 200 amperes at 86V AC/DC 300 amperes at 24V DC
20A - 25A:	50 amperes at 65V AC/DC 300 amperes at 24V DC
30A-35A:	60 amperes at 80V AC/DC
40A:	80 amperes at 65V AC/DC

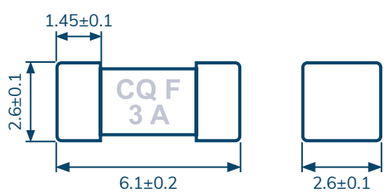
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

Packaging Option	Quantity
On Tape	1,000 pcs / reel

Mechanical Dimensions (mm)



SEF(G)

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
62mA - 10A	4 hr	5 sec
12A - 40A	4 hr	60 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
SEF .062	62mA(1/16A)	125V	6.6530	0.000961
SEF .080	80mA		4.9740	0.001000
SEF .100	100mA		5.8165	0.001500
SEF .125	125mA		5.8395	0.003120
SEF .200	200mA		2.0195	0.008000
SEF .250	250mA		1.1050	0.009380
SEF .315	315mA		0.8554	0.018000
SEF .375	375mA		0.7819	0.021100
SEF .400	400mA		0.5200	0.032000
SEF .500	500mA		0.4895	0.037500
SEF .750	750mA		0.2425	0.153100
SEF 001	1A		0.1407	0.385000
SEF 1.50	1.5A		0.1130	0.725000
SEF 002	2A		0.0594	0.894000
SEF 2.50	2.5A		0.0384	1.182000
SEF 003	3A		0.0333	1.475000
SEF 3.15	3.15A		0.0296	1.655000
SEF 3.50	3.5A		0.0268	2.055000
SEF 004	4A		0.0209	3.882000
SEF 005	5A		0.0179	5.480000
SEF 006	6A		0.0117	8.520000
SEF 007	7A		0.0104	9.931000
SEF 008	8A		0.0095	18.82000
SEF 010	10A		0.0067	22.50000
SEF 012	12A	65V*1	0.0042	43.20000
SEF 015	15A		0.0029	112.5000
SEF 020	20A	65V	0.0025	141.5200
SEF 025	25A		0.0019	246.5536
SEF 030	30A	80V	0.0018	365.4000
SEF 035	35A		0.0016	420.9100
SEF 040	40A	65V	0.0015	503.6800

*1: 86V optional

SET(G)

6.1 x 2.6 x 2.6 mm (2410)

Time-Lag Fuse

Inrush current withstand capability

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	200mA - 7A
CSA Certified	200mA - 7A
PSE	1A - 7A

Electrical Characteristics

Ampere Rating	Opening Time						
	1 In	2 In		3 In		8 In	
	MIN	MIN	MAX	MIN	MAX	MIN	MAX
200mA - 7A	4 hr	1 sec	60 sec	0.2 sec	3 sec	0.02 sec	0.1 sec

Interrupting Rating

50 amperes at 125V AC/DC
300 amperes at 32V DC

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
SET .200	200mA	125V	1.5751	0.0600
SET .250	250mA		1.2585	0.0680
SET .300	300mA		1.2512	0.0900
SET .350	350mA		0.9366	0.1000
SET .375	375mA		0.5232	0.2109
SET .400	400mA		0.5150	0.2400
SET .500	500mA		0.3291	0.3750
SET .750	750mA		0.1600	0.6260
SET 001	1A		0.1090	1.9090
SET 1.50	1.5A		0.0511	3.8350
SET 002	2A		0.0550	8.5600
SET 2.50	2.5A		0.0287	16.550
SET 003	3A		0.0228	22.540
SET 3.15	3.15A		0.0224	23.000
SET 3.50	3.5A		0.0190	29.400
SET 004	4A		0.0140	35.820
SET 005	5A		0.0130	54.800
SET 006	6A		0.0090	64.800
SET 007	7A		0.0074	89.830

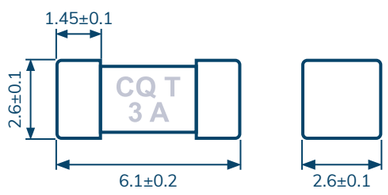
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

Packaging Option	Quantity
On Tape	1,000 pcs / reel

Mechanical Dimensions (mm)



SET(G)

SEH(G)

10.1 x 3.1 x 3.1 mm (4012)

Perfectly suited for a wide range of battery protection boards

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	20A - 30A
TUV	20A - 30A

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
20A - 30A	4 hr	60 sec

Interrupting Rating

20A:	100 amperes at 125V AC 300 amperes at 100V DC
25A - 30A:	100 amperes at 100V DC 100 amperes at 125V AC

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
SEH 020	20A	125V	0.0033	18.000
SEH 025	25A		0.0022	45.000
SEH 030	30A		0.0016	101.00

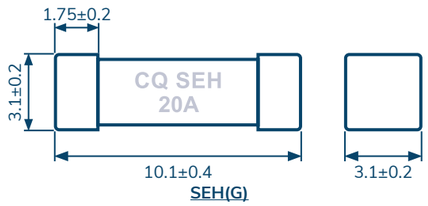
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

Packaging Option	Quantity
On Tape	2,500 pcs / reel

Mechanical Dimensions (mm)



SEH(G)

SEI(G)

10.1 x 3.1 x 3.1 mm (4012)

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	500mA - 5A
TUV	500mA - 5A
KTL	500mA - 5A
CQC	500mA - 3A 4A - 5A

Interrupting Rating

50 amperes at 250V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

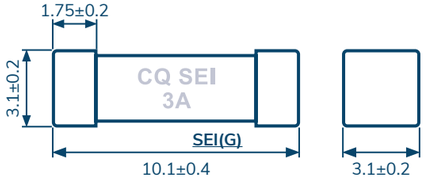
Packaging Option	Quantity
On Tape	2,500 pcs / reel

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2.5 In
	MIN	MAX
500mA - 5A	4 hr	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
SEI .500	500mA	250V	0.5479	1.963
SEI .750	750mA		0.2600	3.375
SEI 001	1A		0.1800	11.22
SEI 1.50	1.5A		0.1027	14.85
SEI 002	2A		0.0504	19.84
SEI 2.50	2.5A		0.0370	20.50
SEI 003	3A		0.0280	54.00
SEI 3.50	3.5A		0.0199	57.82
SEI 004	4A		0.0158	125.6
SEI 005	5A		0.0120	185.0

Mechanical Dimensions (mm)



SEJ

10.1 x 3.1 x 3.1 mm (4012)

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	1.25A
TUV	1.25A
PSE	1.25A
KTL	1.25A
CQC	1.25A

Interrupting Rating

250 amperes at 250V AC
200 amperes at 280V AC
200 amperes at 250V AC
200 amperes at 63V AC
100 amperes at 250V DC
100 amperes at 125V DC
200 amperes at 63V DC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

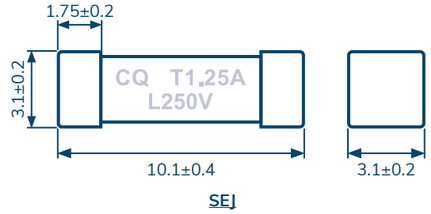
Packaging Option	Quantity
On Tape	2,500 pcs / reel

Electrical Characteristics

Ampere Rating	Opening Time			
	1.25 In	2 In	10 In	
	MIN	MAX	MIN	MAX
1.25A	60 min	120 sec	10 ms	100 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
SEJ 1.25	1.25A	250V	0.105	4.52

Mechanical Dimensions (mm)



SEJ

SEL

10.1 x 3.1 x 3.1 mm (4012)

The SEL series offer high-amp circuit protection and surface mount fuses help space saving

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	10A - 60A
TUV	10A

Interrupting Rating

10A - 20A:	50 amperes at 250V DC 100 amperes at 250V AC 150 amperes at 125V AC 130 amperes at 80V DC 300 amperes at 72V DC
25A - 35A:	100 amperes at 250V AC 150 amperes at 125V AC 130 amperes at 80V DC 300 amperes at 72V DC
40A - 60A:	100 amperes at 250V AC 150 amperes at 125V AC 300 amperes at 65V AC 100 amperes at 100V DC 200 amperes at 75V DC 600 amperes at 60V DC

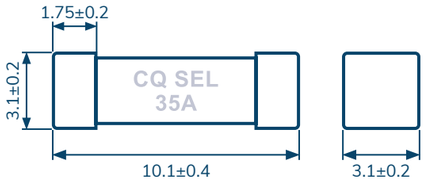
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

Packaging Option	Quantity
On Tape	2,500 pcs / reel

Mechanical Dimensions (mm)



SEL

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
10A - 60A	4 hr	60 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
SEL 010	10A	250V	0.00670	75.000
SEL 015	15A		0.00500	141.75
SEL 020	20A		0.00300	356.00
SEL 025	25A		0.00240	625.00
SEL 030	30A		0.00180	900.00
SEL 035	35A		0.00140	1320.0
SEL 040	40A		0.00122	1897.6
SEL 050	50A		0.00107	3150.0
SEL 060	60A		0.00089	4224.0

SEM

10.1 x 3.1 x 3.1 mm (4012)

Designed to allow compliance with Telcordia GR-1089-CORE and TIA968-A

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	500mA - 2A
TUV	500mA - 2A

Interrupting Rating

60 amperes at 250V AC
60 amperes at 600V AC
50 amperes at 250V DC
100 amperes at 125V DC

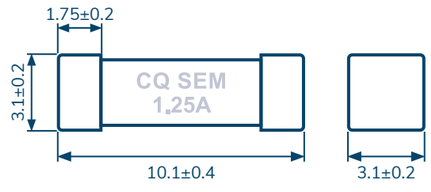
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

Packaging Option	Quantity
On Tape	2,500 pcs / reel

Mechanical Dimensions (mm)



SEM

Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	2.5 In	
	MIN	MIN	MAX
500mA - 2A	4 hr	1 sec	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
SEM .500	500mA	600V	0.480	1.40
SEM 1.25	1.25A		0.100	22.0
SEM 002	2A		0.055	24.0

MMS-P

7.3 x 5.8 x 4.0 mm (2923)

Specially customized for use in power tool battery packs

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	20A - 50A
TUV	20A - 50A

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2.5 In
	MIN	MAX
20A - 50A	4 hr	60 sec

Interrupting Rating

300 amperes at 35V DC
300 amperes at 60V DC

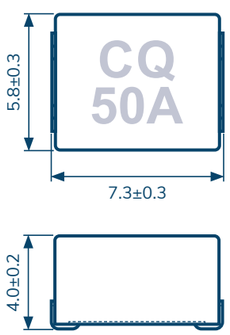
Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
MMS-P 020	20A	60V	0.0020	108.00
MMS-P 030	30A		0.0012	270.00
MMS-P 040	40A		0.0010	416.00
MMS-P 050	50A		0.0007	1750.0

* Measured at ≤ 10% of rated current at 25° C
* Melting I²t at 1000% of current rating

Product Characteristics

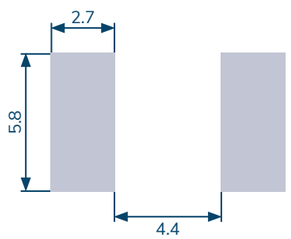
Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Copper(Cu), Tin(Sn) Element: Copper(Cu), Tin(Sn)

Mechanical Dimensions (mm)



MMS-P

Recommended Land Pattern



Reflow Solder

Packaging

Packaging Option	Quantity
On Tape	1,000 pcs / reel

28MH

7.3 x 5.8 x 4.0 mm (2923)

Specially customized for use in power tool battery packs

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	20A - 125A
TUV	20A - 100A

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2.5 In
	MIN	MAX
20A - 125A	4 hr	60 sec

Interrupting Rating

1500 amperes at 80V DC

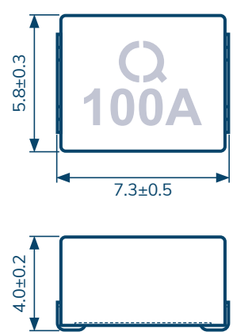
Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
28MH 020	20A	80V	0.00200	162.00
28MH 030	30A		0.00120	369.00
28MH 040	40A		0.00100	521.00
28MH 050	50A		0.00080	1208.0
28MH 060	60A		0.00065	1616.0
28MH 080	80A		0.00055	2624.0
28MH 100	100A		0.00040	6631.0
28MH 125	125A		0.00030	17692

* Measured at ≤ 10% of rated current at 25° C
* Melting I²t at 1000% of current rating

Product Characteristics

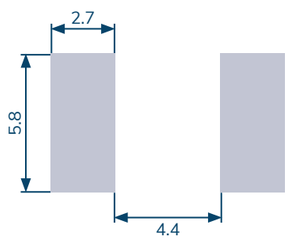
Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Copper(Cu), Tin(Sn) Element: Copper(Cu), Tin(Sn)

Mechanical Dimensions (mm)



28MH

Recommended Land Pattern



Reflow Solder

Packaging

Packaging Option	Quantity
On Tape	1,000 pcs / reel

Subminiature Fuse

Conquer's best-selling fuse made with high frequency soldering technology, increasing fuse stability and reliability.

MCT

8.35 x 3.95 x 5.0 mm

Time-Lag Fuse

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	1A - 6.3A
TUV	1A - 6.3A
PSE	1A - 6.3A
KC	1A - 6.3A
CQC	1A - 6.3A

Interrupting Rating

160 amperes at 250V AC
100 amperes at 250V DC
130 amperes at 300V AC (Optional)
100 amperes at 400V AC (Optional)

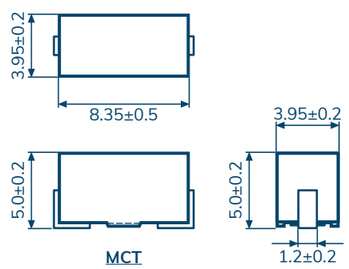
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Base and Cover: Brown thermoplastic, UL 94-V0 Flat lead wire: Tin Plated Copper

Packaging

Packaging Option	Quantity
On Tape	2,000 pcs / reel

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time			
	1.25 In	2 In	10 In	
	MIN	MAX	MIN	MAX
1A - 6.3A	60 min	2 min	10 ms	100 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
MCT 001	1A	250V*1	0.0745	300	6.5998
MCT 1.25	1.25A		0.0576	300	9.2800
MCT 1.60	1.6A		0.0405	300	17.700
MCT 002	2A		0.0342	300	31.200
MCT 2.50	2.5A		0.0233	300	39.938
MCT 3.15	3.15A		0.0184	300	55.635
MCT 004	4A		0.0137	300	115.05
MCT 005	5A		0.0101	300	135.00
MCT 6.30	6.3A		0.0083	300	214.33

*1: 300V/400V optional

PFP

2.7Ø x 7.1 mm

Very Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	125mA - 15A
TUV	125mA - 5A
PSE	1A - 5A
CCC	500mA / 1A / 2A / 2.5A / 4A / 5A

Interrupting Rating

125mA - 10A:	50 amperes at 125V AC 300 amperes at 125V DC
10.1A - 15A:	50 amperes at 32V AC 300 amperes at 32V DC

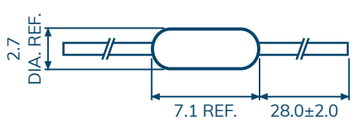
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Encapsulated, Epoxy-Coated Leads Wire: Tin Plated Copper
Leads Wire	Ø0.65mm 10A and Less Ø0.8mm 12A and 15A

Packaging

Packaging Option	Quantity
In Bulk	3,000 pcs / box

Mechanical Dimensions (mm)



PFP

Electrical Characteristics

Ampere Rating	Opening Time				
	1 In	2 In	2.75 In	4 In	10 In
	MIN	MAX	MAX	MAX	MAX
125mA - 5A	4 hr	1 sec	300 ms	30 ms	4 ms
5.1A - 7A	4 hr	1 sec	-	-	-
7.1A - 10A	4 hr	3 sec	-	-	-
12A - 15A	4 hr	10 sec	-	-	-

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
PFP .125	125mA	125V	0.3340	0.0152
PFP .375	375mA		0.2951	0.0268
PFP .500	500mA		0.2782	0.0750
PFP .750	750mA		0.1452	0.1867
PFP 001	1A		0.0745	0.2420
PFP 1.25	1.25A		0.0716	0.2603
PFP 1.50	1.5A		0.0544	0.4820
PFP 002	2A		0.0361	0.5414
PFP 2.50	2.5A		0.0257	1.2183
PFP 003	3A		0.0240	1.3511
PFP 3.50	3.5A		0.0218	2.3887
PFP 004	4A		0.0170	2.8269
PFP 005	5A		0.0144	6.3630
PFP 6.30	6.3A		0.0097	8.8884
PFP 007	7A		0.0090	10.071
PFP 010	10A		0.0055	30.384
PFP 012	12A	32V	0.0052	36.936
PFP 015	15A		0.0031	77.625

PSP

2.7Ø x 7.1 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	500mA - 5A
PSE	1A - 5A

Interrupting Rating

50 amperes at 125V AC/DC

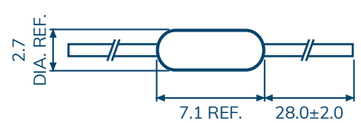
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Encapsulated, Epoxy-Coated Leads Wire: Tin Plated Copper
Leads Wire	Ø0.65mm

Packaging

Packaging Option	Quantity
In Bulk	3,000 pcs / box

Mechanical Dimensions (mm)



PSP

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
500mA - 5A	4 hr	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
PSP .500	500mA	125V	0.2755	0.420
PSP 001	1A		0.1346	1.017
PSP 1.50	1.5A		0.0594	3.418
PSP 002	2A		0.0445	6.293
PSP 2.50	2.5A		0.0278	11.03
PSP 003	3A		0.0255	16.74
PSP 004	4A		0.0166	20.39
PSP 005	5A		0.0129	21.51

PMP

3.2Ø x 7.1 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	375mA - 7A
PSE	1A - 5A (125V)

Interrupting Rating

50 amperes at 250V AC/ 125V DC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Encapsulated, Epoxy-Coated Leads Wire: Tin Plated Copper
Leads Wire	Diameter Ø0.64mm

Packaging

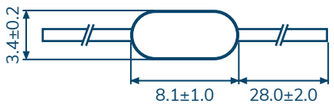
Packaging Option	Quantity
In Bulk	2,000 pcs / box

Electrical Characteristics

Ampere Rating	Opening Time						
	1 In	2 In		3 In		8 In	
	MIN	MIN	MAX	MIN	MAX	MIN	MAX
375mA - 7A	4 hr	1 sec	60 sec	200 ms	3 sec	20 ms	100 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
PMP .375	375mA	250V	0.3618	0.225
PMP .500	500mA		0.2455	0.484
PMP .600	600mA		0.2442	0.685
PMP .750	750mA		0.1733	1.311
PMP 001	1A		0.1109	2.304
PMP 1.50	1.5A		0.0898	5.103
PMP 002	2A		0.0457	8.748
PMP 2.50	2.5A		0.0313	12.36
PMP 003	3A		0.0242	13.37
PMP 3.50	3.5A		0.0211	19.74
PMP 004	4A		0.0158	22.18
PMP 005	5A		0.0128	45.90
PMP 007	7A		0.0090	91.26

Mechanical Dimensions (mm)



PMP

PBS

3.6Ø x 10 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	100mA - 8A

Interrupting Rating

50 amperes at 250V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass

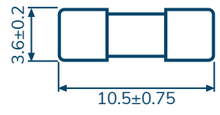
Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
100mA - 8A	4 hr	5 sec

Packaging

Packaging Option	Quantity
Bulk	5,000 pcs / box

Mechanical Dimensions (mm)



PBS

PBP

3.6Ø x 10 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	100mA - 8A
CSA Certified	100mA - 8A

Interrupting Rating

50 amperes at 250V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass
Leads Wire	Ø0.6 mm 5A and less. Ø0.8 mm for rating above 6A to 7A. Ø1.0 mm for rating above 8A.
Option	* With Heat Shrink Tubing (VM-1) over body * PBP Series Available on Tape & reel

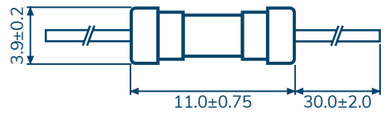
Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
100mA - 8A	4 hr	5 sec

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,500 pcs / box

Mechanical Dimensions (mm)



PBP

PTS

3.6Ø x 10 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	100mA - 5A

Interrupting Rating

50 amperes at 250V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass

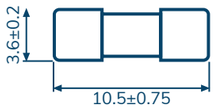
Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
100mA to 5A	4 hr	60 sec

Packaging

Packaging Option	Quantity
Bulk	5,000 pcs / box

Mechanical Dimensions (mm)



PTS

PTP

3.6Ø x 10 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	100mA - 5A
CSA Certified	100mA - 5A

Interrupting Rating

50 amperes at 250V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass
Leads Wire	Ø0.6 mm 5A and less. Ø0.8 mm for rating above 6A to 7A. Ø1.0 mm for rating above 8A.
Option	* With Heat Shrink Tubing (VM-1) over body * PTP Series Available on Tape & reel

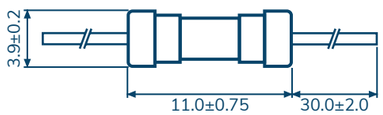
Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
100mA to 5A	4 hr	60 sec

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,500 pcs / box

Mechanical Dimensions (mm)



PTP

PBU

3.6Ø x 10 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Recognized	500mA - 6.3A
VDE	500mA - 6.3A
CSA Acceptance	500mA - 6.3A
KTL	500mA - 6.3A
CCC	1A - 6.3A

Interrupting Rating

35 amperes or 10 x rated current; whichever is greater at 250V AC.

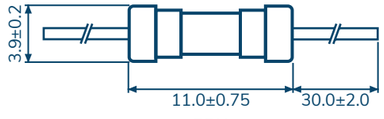
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Nickel Plated Brass
Leads Wire	Ø0.6 mm 4A and less. Ø0.8 mm 5A and 6.3A

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,500 pcs / box

Mechanical Dimensions (mm)



PBU

Electrical Characteristics

Ampere Rating	Opening Time						
	1.5 In	2.1 In	2.75 In		4 In		10 In
	MIN	MAX	MIN	MAX	MIN	MAX	MAX
500mA - 5A	60 min	30 min	10 ms	3 sec	3 ms	300 ms	20 ms
6.3A	60 min	30 min	50 ms	10 sec	5 ms	400 ms	20 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
PBU .500	500mA	250V	0.1270	350	0.1519
PBU .630	630mA		0.1150	320	0.1598
PBU .800	800mA		0.0940	300	0.2880
PBU 001	1A		0.0660	280	0.4572
PBU 1.25	1.25A		0.0470	280	0.8314
PBU 1.60	1.6A		0.0410	250	1.1354
PBU 002	2A		0.0310	240	1.8972
PBU 2.50	2.5A		0.0240	200	3.5370
PBU 3.15	3.15A		0.0160	180	6.3265
PBU 004	4A		0.0130	160	9.9302
PBU 005	5A		0.0110	150	15.131
PBU 6.30	6.3A		0.0070	150	44.922

PTU

3.6Ø x 10 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	250mA - 6.3A
VDE	250mA - 6.3A
CSA Acceptance	250mA - 6.3A
KTL	250mA - 6.3A
CCC	250mA - 6.3A

Interrupting Rating

35 amperes or 10 x rated current; whichever is greater at 250V AC.

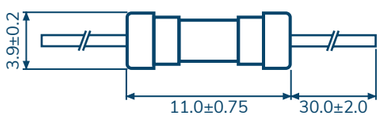
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Nickel Plated Brass
Leads Wire	Ø0.6 mm 4A and less. Ø0.8 mm 5A and 6.3A

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,500 pcs / box

Mechanical Dimensions (mm)



PTU

Electrical Characteristics

Ampere Rating	Opening Time							
	1.5 In	2.1 In	2.75 In		4 In		10 In	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
250mA - 6.3A	60 min	2 min	400 ms	10 sec	150 ms	3 sec	20 ms	150 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I²t (A² sec.)
PTU .250	250mA	250V	0.7310	240	0.3262
PTU .315	315mA		0.4720	220	0.5255
PTU .400	400mA		0.3160	200	0.7296
PTU .500	500mA		0.2560	190	1.3100
PTU .630	630mA		0.1700	180	2.6179
PTU .800	800mA		0.1130	160	4.0645
PTU 001	1A		0.0860	140	6.6388
PTU 1.25	1.25A		0.0640	130	14.738
PTU 1.60	1.6A		0.0460	120	29.768
PTU 002	2A		0.0340	100	32.976
PTU 2.50	2.5A		0.0260	100	61.200
PTU 3.15	3.15A		0.0190	100	91.197
PTU 004	4A		0.0140	100	149.98
PTU 005	5A		0.0100	100	188.60
PTU 6.30	6.3A		0.0080	100	276.76

MEF

8.35Ø x 7.7 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Recognized	50mA - 6.3A
VDE	50mA - 6.3A
CSA Acceptance	50mA - 6.3A
PSE	1A - 6.3A
CCC	50mA - 6.3A

Interrupting Rating

35 amperes or 10 x rated current; whichever is greater at 250V AC.

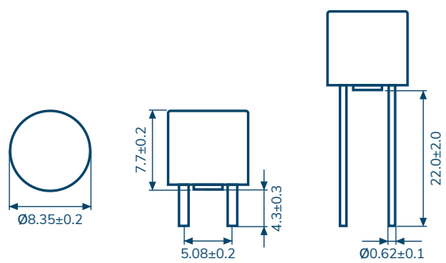
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Base and Cover: Black thermoplastic, UL 94-V0 Round Pins: Tin Plated Copper

Packaging

Packaging Option	Quantity
In Bulk	1,000 pcs / box
On Tape	1,000 pcs / box

Mechanical Dimensions (mm)



MEF Short Leads Long Leads

Electrical Characteristics

Ampere Rating	Opening Time						
	1.5 In	2.1 In	2.75 In		4 In		10 In
	MIN	MAX	MIN	MAX	MIN	MAX	MAX
50mA - 5A	60 min	30 min	10 ms	3 sec	3 ms	300 ms	20 ms
6.3A	60 min	30 min	50 ms	10 sec	5 ms	400 ms	20 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I²t (A² sec.)
MEF .050	50mA	250V	5.4500	850	0.003000
MEF .063	63mA		2.8020	750	0.001429
MEF .080	80mA		1.7100	650	0.007258
MEF .100	100mA		1.1600	600	0.009000
MEF .125	125mA		1.0002	550	0.012566
MEF .160	160mA		0.8290	500	0.023040
MEF .200	200mA		0.5200	480	0.032400
MEF .250	250mA		0.7007	440	0.081563
MEF .315	315mA		0.3820	400	0.093768
MEF .400	400mA		0.3006	370	0.129600
MEF .500	500mA		0.2471	350	0.303750
MEF .630	630mA		0.1460	320	0.375071
MEF .800	800mA		0.1040	300	0.691200
MEF 001	1A		0.0800	280	0.720000
MEF 1.25	1.25A		0.0581	280	1.125000
MEF 1.60	1.6A		0.0406	250	3.225600
MEF 002	2A		0.0330	240	3.600000
MEF 2.50	2.5A		0.0229	200	7.031250
MEF 3.15	3.15A		0.0179	180	8.037225
MEF 004	4A		0.0133	160	19.40000
MEF 005	5A		0.0109	150	21.37500
MEF 6.30	6.3A		0.0087	130	42.86520

MET

8.35Ø x 7.7 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Recognized	50mA - 6.3A (250V/277V)
VDE	50mA - 6.3A
CSA Acceptance	50mA - 6.3A
TUV	8A / 10A
PSE	1A - 10A (250V/277V)
KTL	50mA - 6.3A
CCC	50mA - 6.3A

Interrupting Rating

35 amperes or 10 x rated current; whichever is greater at 250V AC.
35 amperes or 10 x rated current; whichever is greater at 277V AC. (Optional)

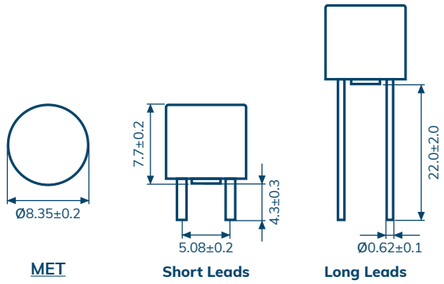
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Base and Cover: Black thermoplastic, UL 94-V0 Round Pins: Tin Plated Copper

Packaging

Packaging Option	Quantity
In Bulk	1,000 pcs / box
On Tape	1,000 pcs / box

Mechanical Dimensions (mm)



MET | Short Leads | Long Leads

Electrical Characteristics

Ampere Rating	Opening Time							
	1.5 In	2.1 In	2.75 In		4 In		10 In	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
50mA - 6.3A	60 min	2 min	400 ms	10 sec	150 ms	3 sec	20 ms	150 ms
8A - 10A	60 min	5 min	1 sec	20 sec	150 ms	3 sec	20 ms	150 ms

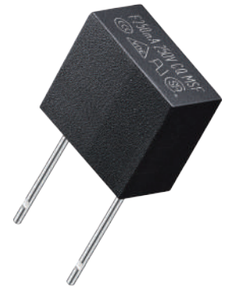
Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
MET .050	50mA	250V*1	8.9000	550	0.0225
MET .063	63mA		5.4053	480	0.0446
MET .080	80mA		3.6870	400	0.0634
MET .100	100mA		2.4063	350	0.1080
MET .125	125mA		1.6194	300	0.1223
MET .160	160mA		1.2458	280	0.1700
MET .200	200mA		0.8240	260	0.3060
MET .250	250mA		0.6300	240	0.6019
MET .315	315mA		0.3800	220	0.8216
MET .400	400mA		0.2700	200	1.4832
MET .500	500mA		0.1950	190	2.7000
MET .630	630mA		0.1322	180	3.1792
MET .800	800mA		0.0907	160	5.7600
MET 001	1A		0.0750	140	8.7300
MET 1.25	1.25A		0.0550	130	14.766
MET 1.60	1.6A		0.0425	120	23.040
MET 002	2A		0.0316	100	36.000
MET 2.50	2.5A		0.0241	100	56.250
MET 3.15	3.15A		0.0188	100	93.768
MET 004	4A		0.0136	100	158.40
MET 005	5A		0.0100	100	202.50
MET 6.30	6.3A		0.0074	100	310.77
MET 008	8A		0.0057	80	155.52
MET 010	10A		0.0034	75	360.00

* 1 : 277V Optional

MSF

8.35 x 4.3 x 7.7 mm

Fast-Acting Fuse



RoHS

Agency Approvals

Agency	Ampere Rating
UL Recognized	50mA - 6.3A
VDE	50mA - 6.3A
CSA Acceptance	50mA - 6.3A
PSE	1A - 6.3A
CCC	50mA - 6.3A

Interrupting Rating

35 amperes or 10 x rated current; whichever is greater at 250V AC.

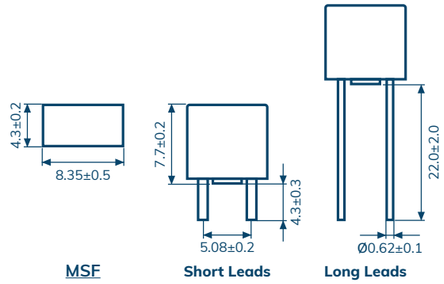
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Base and Cover: Black thermoplastic, UL 94-V0 Round Pins: Tin Plated Copper

Packaging

Packaging Option	Quantity
In Bulk	1,000 pcs / box
On Tape	1,000 pcs / box

Mechanical Dimensions (mm)



MSF | Short Leads | Long Leads

Electrical Characteristics

Ampere Rating	Opening Time						
	1.5 In	2.1 In	2.75 In		4 In		10 In
	MIN	MAX	MIN	MAX	MIN	MAX	MAX
50mA - 5A	60 min	30 min	10 ms	3 sec	3 ms	300 ms	20 ms
6.3A	60 min	30 min	50 ms	10 sec	5 ms	400 ms	20 ms

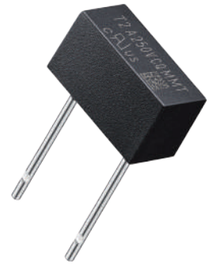
Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
MSF .050	50mA	250V	5.4500	850	0.003000
MSF .063	63mA		2.8020	750	0.001429
MSF .080	80mA		1.7100	650	0.007258
MSF .100	100mA		1.1600	600	0.009000
MSF .125	125mA		0.6730	550	0.012656
MSF .160	160mA		1.4923	500	0.023040
MSF .200	200mA		1.0965	480	0.032400
MSF .250	250mA		0.7007	440	0.081563
MSF .315	315mA		0.3820	400	0.093768
MSF .400	400mA		0.3006	370	0.129600
MSF .500	500mA		0.2471	350	0.303750
MSF .630	630mA		0.1460	320	0.375071
MSF .800	800mA		0.1040	300	0.691200
MSF 001	1A		0.0800	280	0.720000
MSF 1.25	1.25A		0.0581	280	1.125000
MSF 1.60	1.6A		0.0406	250	2.188800
MSF 002	2A		0.0330	240	3.600000
MSF 2.50	2.5A		0.0229	200	7.031250
MSF 3.15	3.15A		0.0179	180	8.037225
MSF 004	4A		0.0133	160	19.44000
MSF 005	5A		0.0109	150	21.37500
MSF 6.30	6.3A		0.0087	130	46.43730

MMT

8.35 x 3.95 x 5.0 mm

Time-Lag Fuse

2015 Taiwan Excellence Award Recipient



RoHS

Agency Approvals

Agency	Ampere Rating
35 amperes or 10 x rated current ; whichever is greater at 250V AC	
Recognized Component for Canada and US	50mA - 6.3A
TUV	50mA - 6.3A
PSE	1A - 6.3A
KTL	50mA - 6.3A
CCC	50mA - 6.3A
160 amperes at 250V AC(optional)	
Recognized Component for Canada and US	50mA - 6.3A
100 amperes at 250V DC(optional)	
Recognized Component for Canada and US	50mA - 6.3A
130 amperes at 300V AC (optional)	
Recognized Component for Canada and US	50mA - 6.3A
100 amperes at 400V AC (optional)	
Recognized Component for Canada and US	50mA - 6.3A

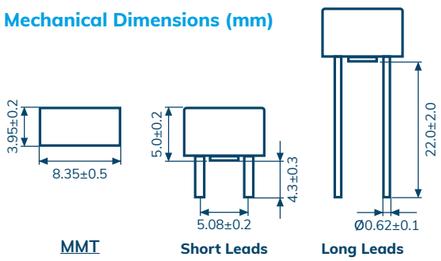
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Base and Cover: Black thermoplastic, UL 94-V0 Round Pins: Tin Plated Copper

Packaging

Packaging Option	Quantity
In Bulk	1,000 pcs / box
On Tape	1,000 pcs / box

Mechanical Dimensions (mm)



MMT | Short Leads | Long Leads

Electrical Characteristics

Ampere Rating	Opening Time							
	1.5 In	2.1 In	2.75 In		4 In		10 In	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
50mA - 6.3A	60 min	2 min	400 ms	10 sec	150 ms	3 sec	20 ms	150 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I²t (A² sec.)
MMT .050	50mA	250V*1	8.9000	550	0.0225
MMT .063	63mA		5.4053	480	0.0446
MMT .080	80mA		3.6870	400	0.0634
MMT .100	100mA		2.4063	350	0.1080
MMT .125	125mA		1.6194	300	0.1223
MMT .160	160mA		1.2458	280	0.2444
MMT .200	200mA		0.8240	260	0.3060
MMT .250	250mA		0.6300	240	0.6019
MMT .315	315mA		0.3800	220	0.8216
MMT .400	400mA		0.2700	200	1.4832
MMT .500	500mA		0.1861	190	2.7000
MMT .630	630mA		0.1401	180	3.1792
MMT .800	800mA		0.0982	160	5.7600
MMT 001	1A		0.0757	140	8.7300
MMT 1.25	1.25A		0.0550	130	9.2800
MMT 1.60	1.6A		0.0426	120	17.700
MMT 002	2A		0.0318	100	36.000
MMT 2.50	2.5A		0.0246	100	39.938
MMT 3.15	3.15A		0.0173	100	55.635
MMT 004	4A		0.0126	100	115.05
MMT 005	5A		0.0090	100	135.00
MMT 6.30	6.3A		0.0073	100	214.33

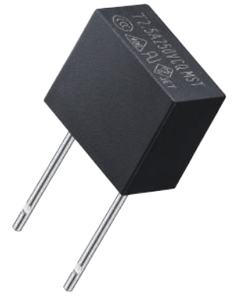
* 1 : 300V/400V optional

MST

8.35 x 4.3 x 7.7 mm

Time-Lag Fuse

The best-selling fuse of its kind the world



RoHS

Agency Approvals

Agency	Ampere Rating
35 amperes or 10 x rated current ; whichever is greater at 250V AC	
UL Recognized	50mA - 10A
VDE	50mA - 6.3A
CSA Acceptance	50mA - 6.3A
TUV	50mA - 10A
PSE	1A - 10A
KTL	50mA - 6.3A
CCC	50mA - 10A
SEMKO	63mA - 10A
130 amperes at 250V AC(optional)	
Recognized Component for Canada and US	50mA - 10A
TUV	50mA - 10A
PSE	1A - 10A
KTL	500mA - 6.3A
CQC	500mA - 10A
50 amperes at 300V AC(optional)	
Recognized Component for Canada and US	50mA - 10A
TUV	50mA - 10A
PSE	1A - 10A
100 amperes at 400V AC (optional)	
Recognized Component for Canada and US	50mA - 10A
100 amperes at 250V DC (optional)	
Recognized Component for Canada and US	50mA - 10A
TUV	50mA - 10A

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Base and Cover: Black thermoplastic, UL 94-V0 Round Pins: Tin Plated Copper

Packaging

Packaging Option	Quantity
In Bulk	1,000 pcs / box
On Tape	1,000 pcs / box

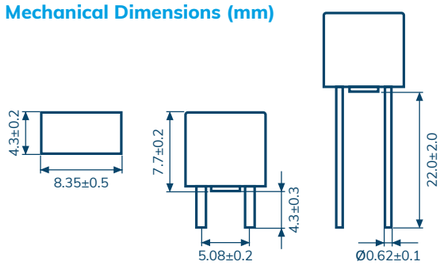
Electrical Characteristics

Ampere Rating	Opening Time							
	1.5 In	2.1 In	2.75 In		4 In		10 In	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
50mA - 6.3A	60 min	2 min	400 ms	10 sec	150 ms	3 sec	20 ms	150 ms
8A - 10A	60min	5 min	1 sec	20 sec	150 ms	3sec	20 ms	150 ms

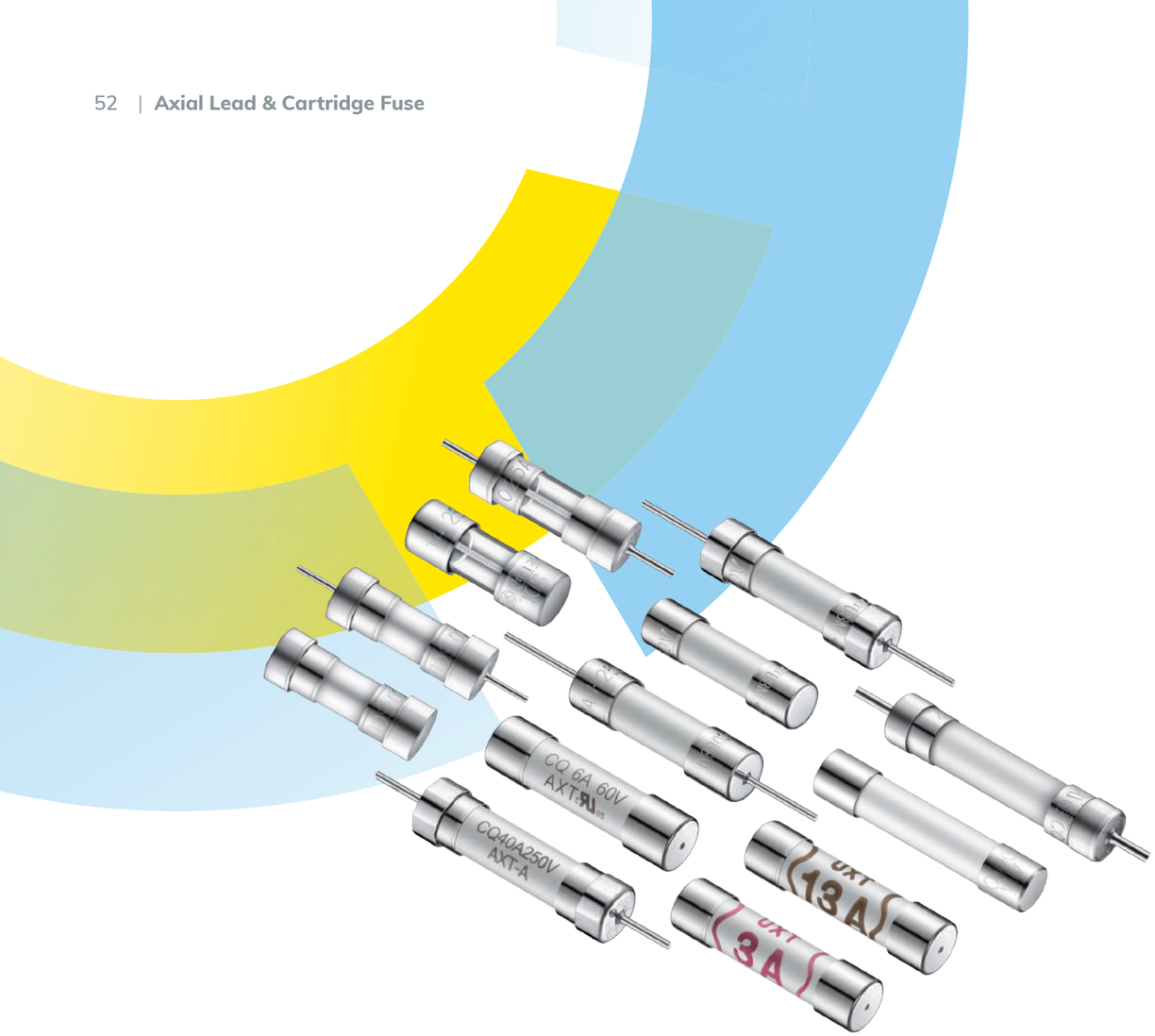
Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I²t (A² sec.)
MST .050	50mA	250V*1	8.9000	550	0.0225
MST .063	63mA		5.4053	480	0.0446
MST .080	80mA		3.6870	400	0.0760
MST .100	100mA		2.4063	350	0.1080
MST .125	125mA		1.6194	300	0.1223
MST .160	160mA		1.2458	280	0.1700
MST .200	200mA		0.8240	260	0.3060
MST .250	250mA		0.6300	240	0.6019
MST .315	315mA		0.3800	220	0.8216
MST .400	400mA		0.2700	200	1.4832
MST .500	500mA		0.1950	190	2.7000
MST .630	630mA		0.1322	180	3.1792
MST .800	800mA		0.0907	160	5.7600
MST 001	1A		0.0750	140	8.7300
MST 1.25	1.25A		0.0550	130	14.766
MST 1.60	1.6A		0.0425	120	23.040
MST 002	2A		0.0316	100	36.000
MST 2.50	2.5A		0.0241	100	56.250
MST 3.15	3.15A		0.0188	100	93.768
MST 004	4A		0.0136	100	158.40
MST 005	5A		0.0100	100	202.50
MST 6.30	6.3A		0.0074	100	310.77
MST 008	8A		0.0057	80	368.64
MST 010	10A		0.0034	75	400.00

* 1 : 300V/400V optional

Mechanical Dimensions (mm)



MST | Short Leads | Long Leads



Axial Lead & Cartridge Fuse

Our highly versatile axial lead and cartridge fuses offer cost-efficient and reliable overcurrent protection solutions, suitable for a wide-range of applications across industries.

SGS

4.5Ø x 14.5 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	10mA - 3.5A
CSA Certified	10mA - 3.5A
PSE	1A - 3.5A

Interrupting Rating

100mA - 3.5A:	10,000 amperes at 125V AC
100mA - 1A:	35 amperes at 250V AC
1.1A - 3.5A:	100 amperes at 250V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass / Caps: Nickel Plated Brass

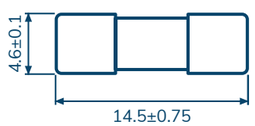
Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2 In
	MIN	MAX	MAX
100mA - 10A	4 hr	1 hr	5 sec

Packaging

Packaging Option	Quantity
Bulk	2,000 pcs / box

Mechanical Dimensions (mm)



SGS

SGP-A

4.5Ø x 14.5 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	10mA - 3.5A
CSA Certified	10mA - 3.5A
PSE	1A - 3.5A

Interrupting Rating

100mA - 3.5A:	10,000 amperes at 125V AC
100mA - 1A:	35 amperes at 250V AC
1.1A - 3.5A:	100 amperes at 250V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass / Caps: Nickel Plated Brass
Leads Wire	Ø0.63 mm 7A and less. Ø1.0 mm for rating above 8A.

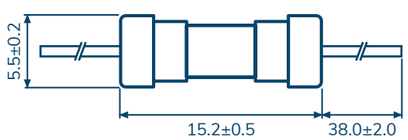
Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2 In
	MIN	MAX	MAX
100mA - 10A	4 hr	1 hr	5 sec

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



SGP-A

SMP-A

4.5Ø x 14.5 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	1A - 8A

Interrupting Rating

100 amperes at 350V AC.

1A-3.5A: 100 amperes at 140V DC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass Caps: Nickel Plated Brass
Leads Wire	Ø0.63 mm 7A and less. Ø1.0 mm for rating above 8A.

Packaging

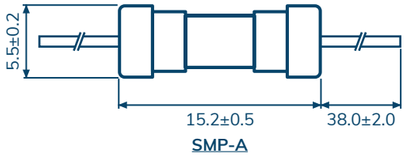
Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2 In
	MIN	MAX	MAX
1A - 8A	4 hr	1 hr	5 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
SMP-A 001	1A	350V	0.1248	0.3454
SMP-A 1.25	1.25A		0.0913	0.6182
SMP-A 1.50	1.5A		0.0756	0.8910
SMP-A 1.75	1.75A		0.0639	1.4535
SMP-A 002	2A		0.0521	2.0160
SMP-A 2.50	2.5A		0.0428	3.1275
SMP-A 003	3A		0.0326	5.7600
SMP-A 3.15	3.15A		0.0315	6.9997
SMP-A 3.50	3.5A		0.0244	8.2394
SMP-A 004	4A		0.0231	8.9856
SMP-A 4.50	4.5A		0.0211	11.155
SMP-A 005	5A		0.0183	13.325
SMP-A 006	6A		0.0158	20.545
SMP-A 6.30	6.3A		0.0134	22.964
SMP-A 007	7A		0.0126	27.766
SMP-A 7.50	7.5A		0.0110	28.985
SMP-A 008	8A		0.0109	30.205

Mechanical Dimensions (mm)



SMP-A

SDL

4.5Ø x 14.5 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	10mA - 8A
CSA Certified	10mA - 8A
PSE	1A - 5A

Interrupting Rating

100mA - 8A: 10,000 amperes at 125V AC

100mA - 1A: 35 amperes at 250V AC

1.1A - 3.5A: 100 amperes at 250V AC

3.75A - 8A: 200 amperes at 250V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass / Caps: Nickel Plated Brass

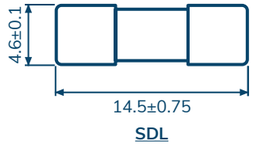
Electrical Characteristics

Ampere Rating	Opening Time			
	1 In	1.35 In	2 In	
	MIN	MAX	MIN	MAX
100mA - 10A	4 hr	1 hr	3 sec	120 sec

Packaging

Packaging Option	Quantity
Bulk	2,000 pcs / box

Mechanical Dimensions (mm)



SDL

SDP-A

4.5Ø x 14.5 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	10mA - 3.5A
UL Recognized	3.75A - 8A
CSA Certified	10mA - 3.5A
PSE	1A - 5A

Interrupting Rating

100mA - 8A: 10,000 amperes at 125V AC

100mA - 1A: 35 amperes at 250V AC

1.1A - 3.5A: 100 amperes at 250V AC

3.75A - 8A: 200 amperes at 250V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass / Caps: Nickel Plated Brass
Leads Wire	Ø0.63 mm 7A and less. Ø1.0 mm for rating above 8A.

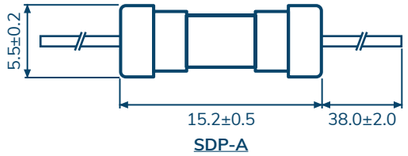
Electrical Characteristics

Ampere Rating	Opening Time			
	1 In	1.35 In	2 In	
	MIN	MAX	MIN	MAX
100mA - 10A	4 hr	1 hr	3 sec	120 sec

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



SDP-A

SCF

4.5Ø x 14.5 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Certified products for U.S. and Canada	100mA - 8A

Interrupting Rating

1A - 8A:	10,000 amperes at 125V AC
1A - 8A:	200 amperes at 250V AC
1A - 8A:	100 amperes at 350V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass

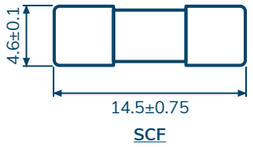
Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2 In
	MIN	MAX	MAX
1A - 8A	4 hr	1 hr	5 sec

Packaging

Packaging Option	Quantity
Bulk	2,000 pcs / box

Mechanical Dimensions (mm)



SCF

SCF-A

4.5Ø x 14.5 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Certified products for U.S. and Canada	100mA - 8A

Interrupting Rating

1A - 8A:	10,000 amperes at 125V AC
1A - 8A:	200 amperes at 250V AC
1A - 8A:	100 amperes at 350V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass
Leads Wire	Ø0.63 mm 7A and less. Ø1.0 mm for rating above 8A.

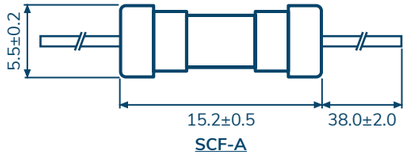
Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2 In
	MIN	MAX	MAX
1A - 8A	4 hr	1 hr	5 sec

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



SCF-A

SCD

4.5Ø x 14.5 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Certified products for U.S. and Canada	100mA - 8A

Interrupting Rating

1A - 8A:	10,000 amperes at 125V AC
1A - 8A:	200 amperes at 250V AC
1A - 8A:	100 amperes at 350V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass

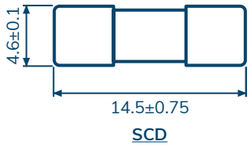
Electrical Characteristics

Ampere Rating	Opening Time			
	1 In	1.35 In	2 In	
	MIN	MAX	MIN	MAX
1A - 8A	4 hr	1 hr	2 sec	120 sec

Packaging

Packaging Option	Quantity
Bulk	2,000 pcs / box

Mechanical Dimensions (mm)



SCD

SCD-A

4.5Ø x 14.5 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Certified products for U.S. and Canada	100mA - 8A

Interrupting Rating

1A - 8A:	10,000 amperes at 125V AC
1A - 8A:	200 amperes at 250V AC
1A - 8A:	100 amperes at 350V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass
Leads Wire	Ø0.63 mm 7A and less. Ø1.0 mm for rating above 8A.

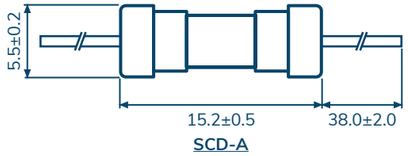
Electrical Characteristics

Ampere Rating	Opening Time			
	1 In	1.35 In	2 In	
	MIN	MAX	MIN	MAX
1A - 8A	4 hr	1 hr	2 sec	120 sec

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



SCD-A

GFE/GFP-A

5.2Ø x 20 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	200mA - 10A
CSA Certified	200mA - 10A
PSE	**GFE:** 1A - 5A (125V / 250V) 6A - 10A (250V) **GFP-A:** 1A - 10A (125V / 250V)

Interrupting Rating

200mA - 10A:	10,000 amperes at 125V AC
200mA - 1A:	35 amperes at 250V AC
1.1A - 3.5A:	100 amperes at 250V AC
3.6A - 10A:	200 amperes at 250V AC

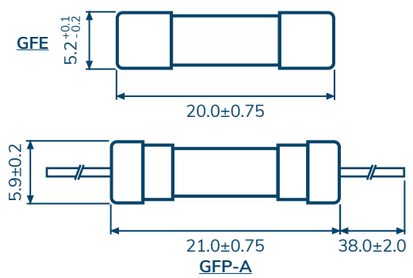
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 14A and less. Ø1.0 mm for rating above 15A to 19A. Ø1.2 mm for rating above 20A.

Packaging

Packaging Option	Quantity
Bulk	**GFE:** 1,000 pcs / box **GFP-A:** 500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2 In
	MIN	MAX	MAX
200mA - 20A	4 hr	1 hr	5 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
GFE / GFP-A .200	200mA		3.4980	0.0085
GFE / GFP-A .250	250mA		2.3610	0.0142
GFE / GFP-A .300	300mA		1.9400	0.0197
GFE / GFP-A .315	315mA		1.4960	0.0218
GFE / GFP-A .350	350mA		1.4466	0.0375
GFE / GFP-A .400	400mA		1.1030	0.0561
GFE / GFP-A .500	500mA		0.4195	0.0930
GFE / GFP-A .600	600mA		0.3262	0.1555
GFE / GFP-A .630	630mA		0.2853	0.2000
GFE / GFP-A .700	700mA		0.2370	0.2714
GFE / GFP-A .750	750mA		0.2107	0.3240
GFE / GFP-A .800	800mA		0.1905	0.3456
GFE / GFP-A 001	1A		0.1438	0.5940
GFE / GFP-A 1.25	1.25A		0.1029	1.1250
GFE / GFP-A 1.50	1.5A		0.0885	1.7820
GFE / GFP-A 1.60	1.6A		0.0757	2.0644
GFE / GFP-A 1.75	1.75A		0.0639	2.5110
GFE / GFP-A 002	2A		0.0588	3.2400
GFE / GFP-A 2.50	2.5A		0.0434	5.0400
GFE / GFP-A 003	3A	250V	0.0394	7.9056
GFE / GFP-A 3.15	3.15A		0.0320	8.9303
GFE / GFP-A 3.20	3.2A		0.0315	9.0909
GFE / GFP-A 3.50	3.5A		0.0307	10.055
GFE / GFP-A 004	4A		0.0288	17.510
GFE / GFP-A 4.50	4.5A		0.0215	21.654
GFE / GFP-A 005	5A		0.0188	25.799
GFE / GFP-A 006	6A		0.0156	37.163
GFE / GFP-A 6.30	6.3A		0.0152	40.692
GFE / GFP-A 007	7A		0.0129	48.925
GFE / GFP-A 7.50	7.5A		0.0125	59.474
GFE / GFP-A 008	8A		0.0113	62.277
GFE / GFP-A 009	9A		0.0099	98.450
GFE / GFP-A 010	10A		0.0085	134.62
GFE / GFP-A 012	12A		0.0073	212.89
GFE / GFP-A 013	13A		0.0066	251.03
GFE / GFP-A 015	15A		0.0052	327.32
GFE / GFP-A 016	16A		0.0049	379.19
GFE / GFP-A 018	18A		0.0039	482.92
GFE / GFP-A 020	20A		0.0034	586.66

GTE/GTP-A

5.2Ø x 20 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	500mA - 10A
CSA Certified	500mA - 3.5A
CSA Acceptance	3.6A - 10A
PSE	**GTE:** 1A - 5A (125V) 1A - 10A (250V) **GTP-A:** 1A - 10A (125V / 250V)
KTL	500mA - 10A

Interrupting Rating

500mA - 10A:	10,000 amperes at 125V AC
500mA - 1A:	35 amperes at 250V AC
1.1A - 3.5A:	100 amperes at 250V AC
3.6A - 10A:	200 amperes at 250V AC

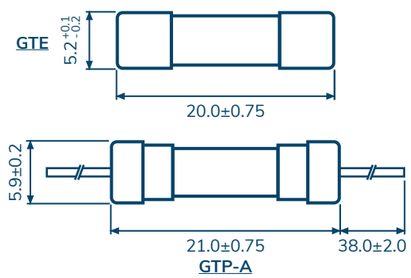
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 14A and less. Ø1.0 mm for rating above 15A to 19A. Ø1.2 mm for rating above 20A.

Packaging

Packaging Option	Quantity
Bulk	**GTE:** 1,000 pcs / box **GTP-A:** 500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time			
	1 In	1.35 In	2 In	
	MIN	MAX	MIN	MAX
500mA - 10A	4 hr	1 hr	2 sec	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
GTE / GTP-A .500	500mA		0.5106	0.2160
GTE / GTP-A .600	600mA		0.4219	0.3240
GTE / GTP-A .630	630mA		0.4016	0.4001
GTE / GTP-A .700	700mA		0.2876	0.5423
GTE / GTP-A .750	750mA		0.2560	0.6075
GTE / GTP-A .800	800mA		0.2377	0.7603
GTE / GTP-A 001	1A		0.1647	1.5480
GTE / GTP-A 1.25	1.25A		0.1198	2.9250
GTE / GTP-A 1.50	1.5A		0.0968	6.6600
GTE / GTP-A 1.60	1.6A		0.0885	7.3485
GTE / GTP-A 002	2A		0.0618	11.772
GTE / GTP-A 2.25	2.25A		0.0502	15.899
GTE / GTP-A 2.50	2.5A		0.0461	20.025
GTE / GTP-A 003	3A	250V	0.0364	34.292
GTE / GTP-A 3.15	3.15A		0.0343	37.566
GTE / GTP-A 3.20	3.2A		0.0321	38.187
GTE / GTP-A 3.50	3.5A		0.0319	38.808
GTE / GTP-A 004	4A		0.0250	63.360
GTE / GTP-A 4.50	4.5A		0.0224	79.585
GTE / GTP-A 005	5A		0.0210	95.810
GTE / GTP-A 006	6A		0.0149	104.36
GTE / GTP-A 6.30	6.3A		0.0104	108.63
GTE / GTP-A 007	7A		0.0088	112.90
GTE / GTP-A 7.50	7.5A		0.0080	127.43
GTE / GTP-A 008	8A		0.0079	144.48
GTE / GTP-A 010	10A		0.0061	254.30

GSL/GST-A

5.2Ø x 20 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	600mA - 8A
CSA Certified	600mA - 8A
PSE	**GSL:** 1A - 5A (125V) 1A - 8A (250V) **GST-A:** 1A - 8A

Interrupting Rating

600mA - 8A:	10,000 amperes at 125V AC
600mA - 1A:	35 amperes at 250V AC
1.1A - 3.5A:	100 amperes at 250V AC
3.6A - 8A:	200 amperes at 250V AC

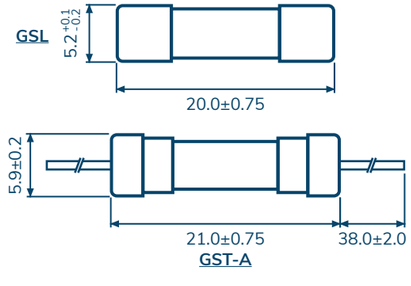
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 14A and less. Ø1.0 mm for rating above 15A to 19A. Ø1.2 mm for rating above 20A.

Packaging

Packaging Option	Quantity
Bulk	**GSL:** 1,000 pcs / box **GST-A:** 500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time			
	1 In	1.35 In	2 In	
	MIN	MAX	MIN	MAX
600mA - 20A	4 hr	1 hr	3 sec	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
GSL / GST-A .600	600mA	250V	0.6260	4.0008
GSL / GST-A .630	630mA		0.3925	4.4064
GSL / GST-A .700	700mA		0.3815	7.4088
GSL / GST-A .750	750mA		0.3377	9.2007
GSL / GST-A .800	800mA		0.3105	11.011
GSL / GST-A 001	1A		0.1879	14.400
GSL / GST-A 1.25	1.25A		0.1467	19.181
GSL / GST-A 1.50	1.5A		0.1048	23.962
GSL / GST-A 1.60	1.6A		0.1000	24.750
GSL / GST-A 002	2A		0.0736	59.616
GSL / GST-A 2.50	2.5A		0.0626	120.60
GSL / GST-A 003	3A		0.0514	176.26
GSL / GST-A 3.15	3.15A		0.0475	193.60
GSL / GST-A 3.50	3.5A		0.0380	198.61
GSL / GST-A 004	4A		0.0306	281.09
GSL / GST-A 005	5A		0.0216	391.64
GSL / GST-A 006	6A		0.0166	467.21
GSL / GST-A 6.30	6.3A		0.0158	477.81
GSL / GST-A 007	7A		0.0135	690.11
GSL / GST-A 7.50	7.5A		0.0122	737.70
GSL / GST-A 008	8A		0.0112	785.30
GSL / GST-A 010	10A		0.0090	975.71
GSL / GST-A 012	12A		0.0078	1569.7
GSL / GST-A 015	15A		0.0051	1922.1
GSL / GST-A 020	20A		0.0029	3553.6

GBF/GBF-A

5.2Ø x 20 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	16A - 20A

Interrupting Rating

16A - 20A: 200 amperes at 250V AC

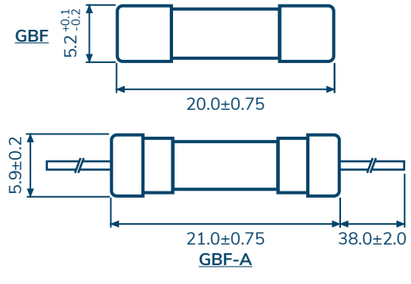
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 14A and less. Ø1.0 mm for rating above 15A to 19A. Ø1.2 mm for rating above 20A.

Packaging

Packaging Option	Quantity
Bulk	**GBF:** 1,000 pcs / box **GBF-A:** 500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.5 In	2.5 In
	MIN	MAX	MAX
16A - 20A	4 hr	120 sec	1 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
GBF / GBF-A 016	16A	250V	0.0069	270.34
GBF / GBF-A 020	20A		0.0049	430.40

GBM/GBP-A

5.2Ø x 20 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	100mA - 15A
CSA Certified	100mA - 12A
CSA Acceptance	12.1A - 15A
PSE	5.1A - 15A

Interrupting Rating

100mA - 15A:	10,000 amperes at 125V AC
100mA - 1A:	35 amperes at 250V AC
1.25A - 3.5A:	100 amperes at 250V AC
3.75A - 10A:	200 amperes at 250V AC
10.1A - 15A:	750 amperes at 250V AC

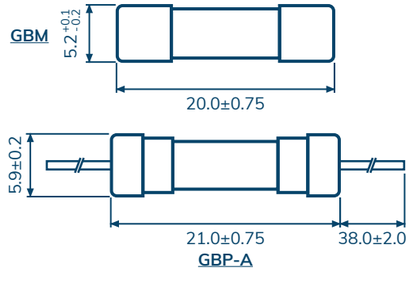
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 14A and less. Ø1.0 mm for rating above 15A to 19A. Ø1.2 mm for rating above 20A.

Packaging

Packaging Option	Quantity
Bulk	**GBM:** 1,000 pcs / box **GBP-A:** 500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2 In
	MIN	MAX	MAX
100mA - 20A	4 hr	1 hr	30 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
GBM / GBP-A .100	100mA	250V	9.9900	0.0018
GBM / GBP-A .125	125mA		6.6320	0.0035
GBM / GBP-A .150	150mA		6.4810	0.0048
GBM / GBP-A .200	200mA		3.0970	0.0085
GBM / GBP-A .250	250mA		2.5440	0.0142
GBM / GBP-A .300	300mA		2.1170	0.0197
GBM / GBP-A .315	315mA		2.0080	0.0218
GBM / GBP-A .350	350mA		0.7350	0.0375
GBM / GBP-A .400	400mA		0.6030	0.0561
GBM / GBP-A .500	500mA		0.4005	0.1170
GBM / GBP-A .600	600mA		0.2930	0.1539
GBM / GBP-A .630	630mA		0.2920	0.1715
GBM / GBP-A .700	700mA		0.2370	0.2190
GBM / GBP-A .750	750mA		0.2144	0.2430
GBM / GBP-A .800	800mA		0.2100	0.2840
GBM / GBP-A 001	1A		0.1637	0.4140
GBM / GBP-A 1.50	1.5A		0.0813	1.4580
GBM / GBP-A 002	2A		0.0576	3.1680
GBM / GBP-A 2.50	2.5A		0.0569	3.6000
GBM / GBP-A 003	3A		0.0463	5.0625
GBM / GBP-A 3.15	3.15A		0.0461	5.8725
GBM / GBP-A 3.50	3.5A		0.0329	9.3726
GBM / GBP-A 004	4A		0.0275	13.683
GBM / GBP-A 005	5A		0.0209	22.303
GBM / GBP-A 006	6A		0.0137	43.708
GBM / GBP-A 6.30	6.3A		0.0129	48.237
GBM / GBP-A 007	7A		0.0127	60.523
GBM / GBP-A 008	8A		0.0124	95.715
GBM / GBP-A 010	10A		0.0074	166.10
GBM / GBP-A 012	12A		0.0057	240.62
GBM / GBP-A 015	15A		0.0044	435.98
GBM / GBP-A 020	20A		0.0034	792.00

GDA/GPA-A

5.2Ø x 20 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	1A - 15A
CSA Certified	1A -12A
CSA Acceptance	12.1A -15A
PSE	5.1A -15A (250V)
KTL	1.5A -20A

Interrupting Rating

1A - 15A:	10,000 amperes at 125V AC
1A:	35 amperes at 250V AC
1.1A - 3.5A:	100 amperes at 250V AC
3.6A - 10A:	200 amperes at 250V AC
10.1A - 15A:	750 amperes at 250V AC
15.1A - 20A:	200 amperes at 250V AC

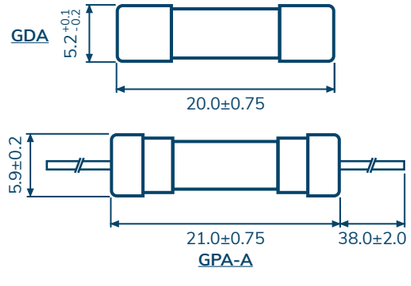
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 14A and less. Ø1.0 mm for rating above 15A to 19A. Ø1.2 mm for rating above 20A.

Packaging

Packaging Option	Quantity
Bulk	**GDA:** 1,000 pcs / box **GPA-A:** 500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time			
	1 In	1.35 In	2 In	
	MIN	MAX	MIN	MAX
1A - 20A	4 hr	1 hr	2 sec	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
GDA / GPA-A 001	1A	250V	0.1970	1.1520
GDA / GPA-A 1.25	1.25A		0.1285	2.3250
GDA / GPA-A 1.50	1.5A		0.0890	4.4384
GDA / GPA-A 1.60	1.6A		0.0852	5.2838
GDA / GPA-A 002	2A		0.0585	10.656
GDA / GPA-A 2.50	2.5A		0.0872	5.1183
GDA / GPA-A 003	3A		0.0615	9.8370
GDA / GPA-A 3.15	3.15A		0.0607	12.145
GDA / GPA-A 004	4A		0.0410	24.023
GDA / GPA-A 005	5A		0.0344	35.087
GDA / GPA-A 006	6A		0.0231	48.413
GDA / GPA-A 6.30	6.3A		0.0221	52.411
GDA / GPA-A 007	7A		0.0117	61.740
GDA / GPA-A 008	8A		0.0104	75.422
GDA / GPA-A 010	10A		0.0074	174.02
GDA / GPA-A 012	12A		0.0057	274.65
GDA / GPA-A 015	15A		0.0041	534.24
GDA / GPA-A 020	20A		0.0028	959.40

UFE/UFE-A

5.2Ø x 20 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Recognized	160mA - 10A
VDE	160mA - 10A
CSA Acceptance	160mA - 10A
PSE	1A - 10A
KTL	160mA - 6.3A
CQC	8A / 10A
CCC	160mA - 6.3A
BSI	**UFE only:** 160mA - 6.3A

Interrupting Rating

35 amperes or 10 x rated current; whichever is greater at 250V AC.

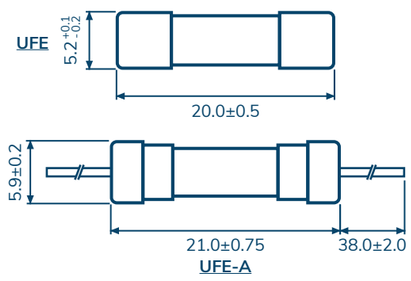
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm

Packaging

Packaging Option	Quantity
Bulk	**UFE:** 1,000 pcs / box **UFE-A:** 500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time						
	1.5 In	2.1 In	2.75 In		4 In		10 In
	MIN	MAX	MIN	MAX	MIN	MAX	MAX
160mA - 6.3A	60 min	30 min	50 ms	2 sec	10 ms	300 ms	20 ms
8A - 10A	30 min	30 min	50 ms	2 sec	10 ms	400 ms	40 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
UFE / UFE-A .160	160mA	250V	2.6655	2000	0.0054
UFE / UFE-A .200	200mA		1.8220	1700	0.0160
UFE / UFE-A .250	250mA		1.3237	1400	0.0250
UFE / UFE-A .315	315mA		0.4159	1300	0.0396
UFE / UFE-A .400	400mA		0.2954	1200	0.1250
UFE / UFE-A .500	500mA		0.2482	1000	0.2077
UFE / UFE-A .630	630mA		0.1932	650	0.3029
UFE / UFE-A .800	800mA		0.1265	240	0.7477
UFE / UFE-A 001	1A		0.0800	200	1.1925
UFE / UFE-A 1.25	1.25A		0.0692	200	2.0869
UFE / UFE-A 1.60	1.6A		0.0502	190	7.2069
UFE / UFE-A 002	2A		0.0373	170	7.9544
UFE / UFE-A 2.50	2.5A		0.0302	170	8.7019
UFE / UFE-A 3.15	3.15A		0.0224	150	17.208
UFE / UFE-A 004	4A		0.0177	130	28.368
UFE / UFE-A 005	5A		0.0149	130	49.140
UFE / UFE-A 6.30	6.3A		0.0103	130	93.017
UFE / UFE-A 008	8A		0.0077	130	157.59
UFE / UFE-A 010	10A		0.0058	130	253.08

USL/USL-A

5.2Ø x 20 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Recognized	125mA - 400mA
VDE	125mA - 400mA
CSA Acceptance	125mA - 400mA
KTL	125mA - 400mA
CCC	125mA - 400mA
BSI	**USL only:** 125mA - 400mA

Interrupting Rating

35 amperes or 10 x rated current; whichever is greater at 250V AC.

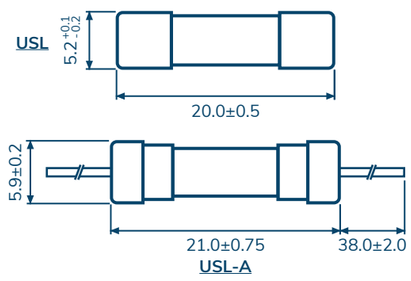
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm

Packaging

Packaging Option	Quantity
Bulk	**USL:** 1,000 pcs / box **USL-A:** 500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time							
	1.5 In	2.1 In	2.75 In		4 In		10 In	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
125mA - 400mA	60 min	2 min	600 ms	10 sec	150 ms	3 sec	20 ms	300 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
USL / USL-A .125	125mA	250V	3.4100	2000	0.0910
USL / USL-A .160	160mA		2.8600	1900	0.1000
USL / USL-A .200	200mA		1.9900	1500	0.2424
USL / USL-A .250	250mA		1.2876	1300	0.5450
USL / USL-A .315	315mA		0.8212	1100	1.1330
USL / USL-A .400	400mA		0.5019	1000	1.5380

UTE/UTE-A

5.2Ø x 20 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Recognized	500mA - 10A
Recognized Component for Canada and US	11A - 16A
VDE	500mA - 10A
CSA Acceptance	500mA - 10A
TUV	11A - 15A
PSE	1A - 15A
KTL	500mA - 6.3A
CQC	8A / 10A / 16A
CCC	500mA - 6.3A
BSI	**UTE only:** 500mA - 6.3A

Interrupting Rating

35 amperes or 10 x rated current; whichever is greater at 250V AC.

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass / Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 12A and less. Ø1.0 mm for rating above 12.1A.

Packaging

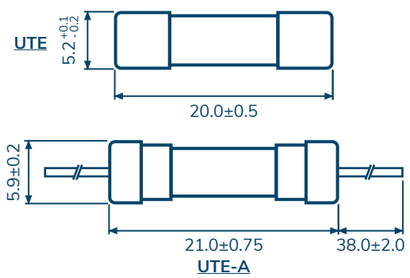
Packaging Option	Quantity
Bulk	**UTE:** 1,000 pcs / box **UTE-A:** 500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Electrical Characteristics

Ampere Rating	Opening Time							
	1.5 In	2.1 In	2.75 In		4 In		10 In	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
500mA - 6.3A	60 min	2 min	600 ms	10 sec	150 ms	3 sec	20 ms	300 ms
8A - 16A	30 min	2 min	600 ms	10 sec	150 ms	3 sec	20 ms	300 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
UTE / UTE-A .500	500mA	250V	0.1989	900	0.7740
UTE / UTE-A .630	630mA		0.1403	300	1.1510
UTE / UTE-A .800	800mA		0.1089	250	2.3850
UTE / UTE-A 001	1A		0.0776	150	4.5000
UTE / UTE-A 1.25	1.25A		0.0566	150	10.809
UTE / UTE-A 1.60	1.6A		0.0438	150	17.118
UTE / UTE-A 002	2A		0.0349	150	29.088
UTE / UTE-A 2.50	2.5A		0.0241	120	49.905
UTE / UTE-A 3.15	3.15A		0.0187	100	74.304
UTE / UTE-A 004	4A		0.0145	100	140.01
UTE / UTE-A 005	5A		0.0107	100	159.29
UTE / UTE-A 6.30	6.3A		0.0083	100	178.56
UTE / UTE-A 008	8A		0.0059	100	264.96
UTE / UTE-A 010	10A		0.0043	100	552.60
UTE / UTE-A 011	11A		0.0040	100	666.00
UTE / UTE-A 12.5	12.5A		0.0035	100	793.80
UTE / UTE-A 015	15A		0.0027	100	1121.0
UTE / UTE-A 016	16A		0.0026	100	1365.4

Mechanical Dimensions (mm)



UDL/UDL-A

5.2Ø x 20 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	500mA - 6.3A
VDE	500mA - 10A
CCC	500mA - 10A

Interrupting Rating

150 amperes at 250V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass / Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm

Packaging

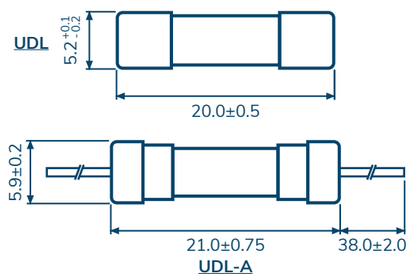
Packaging Option	Quantity
Bulk	**UDL:** 1,000 pcs / box **UDL-A:** 500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Electrical Characteristics

Ampere Rating	Opening Time							
	1.5 In	2.1 In	2.75 In		4 In		10 In	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
500mA - 6.3A	60 min	2 min	600 ms	10 sec	150 ms	3 sec	20 ms	300 ms
8A - 10A	30 min	2 min	600 ms	10 sec	150 ms	3 sec	20 ms	300 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
UDL / UDL-A .500	500mA	250V	0.314	900	5.2500
UDL / UDL-A .630	630mA		0.210	300	8.3500
UDL / UDL-A .800	800mA		0.145	250	8.4609
UDL / UDL-A 001	1A		0.105	150	21.940
UDL / UDL-A 1.25	1.25A		0.081	150	35.419
UDL / UDL-A 1.60	1.6A		0.059	150	51.963
UDL / UDL-A 002	2A		0.041	150	68.508
UDL / UDL-A 2.50	2.5A		0.033	120	144.09
UDL / UDL-A 3.15	3.15A		0.022	100	198.16
UDL / UDL-A 004	4A		0.016	100	308.74
UDL / UDL-A 005	5A		0.013	100	459.14
UDL / UDL-A 6.30	6.3A		0.010	100	743.71
UDL / UDL-A 008	8A		0.007	100	1163.9
UDL / UDL-A 010	10A		0.005	100	1584.0

Mechanical Dimensions (mm)



UBM-P

5.2Ø x 20 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	1A - 10A
TUV	1A - 10A
PSE	1A - 10A
KTL	1A - 10A
CCC	1A - 10A

Electrical Characteristics

Ampere Rating	2.1 In	2.75 In		4 In		10 In
	MAX	MIN	MAX	MIN	MAX	MAX
1A - 4A	30 min	10 ms	2 sec	3 ms	300 ms	20 ms
5A - 6.3A	30 min	10 ms	3 sec	3 ms	300 ms	20 ms
8A - 10A	30 min	40 ms	20 sec	10 ms	1 sec	30 ms

Interrupting Rating

1500 amperes at 250V AC

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
UBM-P 001	1A	250V	0.0937	1000	1.1151
UBM-P 1.25	1.25A		0.1420	800	0.8010
UBM-P 1.60	1.6A		0.0971	600	1.5660
UBM-P 002	2A		0.0642	500	3.5280
UBM-P 2.50	2.5A		0.0503	400	4.6260
UBM-P 3.15	3.15A		0.0362	350	9.4050
UBM-P 004	4A		0.0239	300	20.664
UBM-P 005	5A		0.0185	250	27.630
UBM-P 6.30	6.3A		0.0140	200	68.580
UBM-P 008	8A		0.0098	200	79.488
UBM-P 010	10A		0.0069	200	189.00

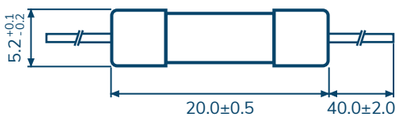
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Nickel Plated Brass
Leads Wire	Ø0.65 mm 6.3A and less. Ø0.8 mm 8A/10A

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



UBM-P

UBM

5.2Ø x 20 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Recognized	100mA - 10A
Recognized Component for Canada and US	10.1A - 16A
VDE	500mA - 10A
CSA Acceptance	100mA - 10A
TUV	12.5A / 16A
PSE	1A - 15A
KTL	100mA - 6.3A
CQC	12.5A / 16A
CCC	100mA - 10A
BSI	100mA - 6.3A
SEMKO	100mA - 6.3A

Electrical Characteristics

Ampere Rating	Opening Time						
	1.5 In	2.1 In	2.75 In		4 In		10 In
	MIN	MAX	MIN	MAX	MIN	MAX	MAX
100mA - 4A	60 min	30 min	10 ms	2 sec	3 ms	300 ms	20 ms
5A - 6.3A	60 min	30 min	10 ms	3 sec	3 ms	300 ms	20 ms
8A - 16A	30 min	30 min	40 ms	20 sec	10 ms	1 sec	30 ms

Interrupting Rating

1500 amperes at 250V AC

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
UBM .100	100mA	250V	6.3375	7000	0.00200
UBM .400	400mA		0.3740	2000	0.14400
UBM .500	500mA		0.2500	1800	0.20700
UBM .630	630mA		0.1624	1500	0.36512
UBM .800	800mA		0.1132	1200	0.58481
UBM 001	1A		0.0910	1000	0.91982
UBM 1.25	1.25A		0.1462	800	0.80190
UBM 1.60	1.6A		0.0916	600	1.34055
UBM 002	2A		0.0727	500	1.87920
UBM 2.50	2.5A		0.0509	400	4.50810
UBM 3.15	3.15A		0.0370	350	7.13700
UBM 004	4A		0.0283	300	14.5440
UBM 005	5A		0.0208	250	23.7780
UBM 6.30	6.3A		0.0150	200	38.8863
UBM 008	8A		0.0106	200	91.5381
UBM 010	10A		0.0075	200	189.180
UBM 012	12A		0.0058	200	296.369
UBM 12.5	12.5A		0.0055	200	323.438
UBM 015	15A		0.0047	200	412.420
UBM 016	16A		0.0040	200	462.274

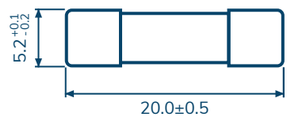
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Nickel Plated Brass

Packaging

Packaging Option	Quantity
Bulk	1,000 pcs / box

Mechanical Dimensions (mm)



UBM

UBM-A

5.2Ø x 20 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
1500 amperes at 250V AC	
UL Recognized	100mA - 10A
Recognized Component for Canada and US	10.1A - 16A
VDE	500mA - 10A
CSA Acceptance	100mA - 10A
TUV	12.5A / 16A
PSE	1A - 15A
KTL	100mA - 6.3A
CQC	12.5A / 16A
CCC	100mA - 10A
SEMKO	100mA - 6.3A
500mA - 16A: 1500 amperes at 277V AC(optional)	
Recognized Component for Canada and US	500mA - 16A
TUV	500mA - 16A

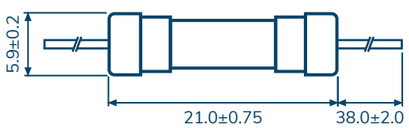
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 12A and less. Ø1.0 mm for rating above 12.5A.

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



UBM-A

Electrical Characteristics

Ampere Rating	Opening Time						
	1.5 In	2.1 In	2.75 In		4 In		10 In
	MIN	MAX	MIN	MAX	MIN	MAX	MAX
100mA - 4A	60 min	30 min	10 ms	2 sec	3 ms	300 ms	20 ms
5A - 6.3A	60 min	30 min	10 ms	3 sec	3 ms	300 ms	20 ms
8A - 16A	30 min	30 min	40 ms	20 sec	10 ms	1 sec	30 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
UBM-A .100	100mA	250V	6.3375	7000	0.00200
UBM-A .400	400mA		0.3740	2000	0.14400
UBM-A .500	500mA		0.2500	1800	0.20700
UBM-A .630	630mA		0.1624	1500	0.36512
UBM-A .800	800mA		0.1132	1200	0.58481
UBM-A 001	1A		0.0910	1000	0.91982
UBM-A 1.25	1.25A		0.1462	800	0.80190
UBM-A 1.60	1.6A		0.0916	600	1.34055
UBM-A 002	2A		0.0727	500	1.87920
UBM-A 2.50	2.5A		0.0509	400	4.50810
UBM-A 3.15	3.15A		0.0370	350	7.13700
UBM-A 004	4A		0.0283	300	14.5440
UBM-A 005	5A		0.0208	250	23.7780
UBM-A 6.30	6.3A		0.0150	200	38.8863
UBM-A 008	8A		0.0106	200	91.5381
UBM-A 010	10A		0.0075	200	189.180
UBM-A 012	12A		0.0058	200	296.369
UBM-A 12.5	12.5A		0.0055	200	323.438
UBM-A 015	15A		0.0047	200	412.420
UBM-A 016	16A		0.0040	200	462.274

UBF/UBF-A

5.2Ø x 20 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	8A - 25A
TUV	8A - 25A

Interrupting Rating

8A - 16A:	300 amperes at 420V AC/DC 400 amperes at 450V DC 200 amperes at 500V AC 200 amperes at 600V AC
20A - 25A:	300 amperes at 420V DC 400 amperes at 450V DC 200 amperes at 420V AC 200 amperes at 500V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass
Leads Wire	Ø1.0 mm 16A and less. Ø1.2 mm for rating above 20A.

Packaging

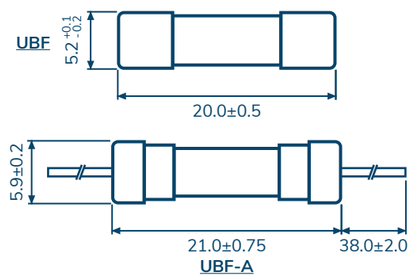
Packaging Option	Quantity
Bulk	**UBF:** 1,000 pcs / box **UBF-A:** 500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Electrical Characteristics

Ampere Rating	Opening Time						
	1 In	2.1 In	2.75 In		4 In		10 In
	MIN	MAX	MIN	MAX	MIN	MAX	MAX
8A - 25A	60 min	30 min	40 ms	20 sec	10 ms	1 sec	30 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
UBF / UBF-A 008	8A	420V	0.01431	62.000
UBF / UBF-A 010	10A		0.01033	128.00
UBF / UBF-A 12.5	12.5A		0.00856	169.00
UBF / UBF-A 015	15A		0.00664	195.00
UBF / UBF-A 016	16A		0.00615	260.00
UBF / UBF-A 020	20A		0.00417	395.00
UBF / UBF-A 025	25A		0.00246	1250.0

Mechanical Dimensions (mm)



UDA-P

5.2Ø x 20 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	1A - 10A
TUV	1A - 10A
PSE	1A - 10A
KTL	1A - 10A
CCC	1A - 10A

Interrupting Rating

1500 amperes at 250V AC

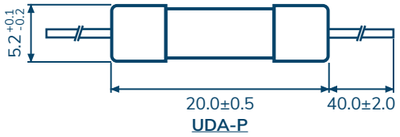
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Nickel Plated Brass
Leads Wire	Ø0.65 mm 6.3A and less. Ø0.8 mm 8A/10A

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



UDA-P

Electrical Characteristics

Ampere Rating	2.1 In	2.75 In		4 In		10 In	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX
1A - 3.15A	30 min	750 ms	80 sec	95 ms	5 sec	10 ms	150 ms
4A - 6.3A	30 min	750 ms	80 sec	150 ms	5 sec	10 ms	150 ms
8A - 10A	30 min	750 ms	80 sec	150 ms	5 sec	10 ms	150 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
UDA-P 001	1A	250V	0.0744	350	6.9120
UDA-P 1.25	1.25A		0.0618	300	9.0000
UDA-P 1.60	1.6A		0.0781	200	6.2640
UDA-P 002	2A		0.0478	190	11.088
UDA-P 2.50	2.5A		0.0385	180	24.750
UDA-P 3.15	3.15A		0.0265	140	41.697
UDA-P 004	4A		0.0175	100	95.904
UDA-P 005	5A		0.0130	100	112.50
UDA-P 6.30	6.3A		0.0099	100	130.10
UDA-P 008	8A		0.0075	100	194.69
UDA-P 010	10A		0.0059	100	331.20

UDA

5.2Ø x 20 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Recognized	500mA - 10A
Recognized Component for Canada and US	10.1A - 25A
VDE	800mA - 12A
CSA Acceptance	800mA - 10A
TUV	15A - 25A
PSE	1A - 15A
KTL	1A - 10A
CCC	1A - 10A
BSI	1A - 6.3A
SEMKO	800mA - 12A

Interrupting Rating

500mA - 12A:	1,500 amperes at 250V AC
15A - 16A:	500 amperes at 250V AC
20A:	400 amperes at 250V AC
25A:	300 amperes at 250V AC

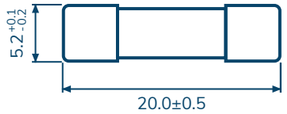
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Nickel Plated Brass

Packaging

Packaging Option	Quantity
Bulk	1,000 pcs / box

Mechanical Dimensions (mm)



UDA

Electrical Characteristics

Ampere Rating	Opening Time							
	1.5 In	2.1 In	2.75 In		4 In		10 In	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
500mA - 800mA	60 min	30 min	250 ms	80 sec	50 ms	5 sec	5 ms	150 ms
1A - 3.15A	60 min	30 min	750 ms	80 sec	95 ms	5 sec	10 ms	150 ms
4A - 6.3A	60 min	30 min	750 ms	80 sec	150 ms	5 sec	10 ms	150 ms
8A - 25A	30 min	30 min	750 ms	80 sec	150 ms	5 sec	10 ms	150 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I^2t (A^2 sec.)
UDA .500	500mA	250V	0.2276	850	0.7290
UDA .630	630mA		0.1392	650	1.6880
UDA .800	800mA		0.1180	500	2.3040
UDA 001	1A		0.0730	350	6.5570
UDA 1.25	1.25A		0.0630	300	7.8125
UDA 1.60	1.6A		0.0600	200	8.9600
UDA 002	2A		0.0499	190	18.576
UDA 2.50	2.5A		0.0384	180	29.070
UDA 3.15	3.15A		0.0290	140	39.564
UDA 004	4A		0.0186	100	97.920
UDA 005	5A		0.0135	100	166.77
UDA 6.30	6.3A		0.0105	100	198.48
UDA 008	8A		0.0068	100	230.19
UDA 010	10A		0.0050	100	377.77
UDA 012	12A		0.0034	100	848.88
UDA 015	15A		0.0032	100	900.32
UDA 016	16A		0.0030	100	1086.6
UDA 020	20A		0.0023	100	1687.0
UDA 025	25A		0.0018	100	4121.4

UDA-A

5.2Ø x 20 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Recognized	500mA - 10A
Recognized Component for Canada and US	10.1A - 25A
VDE	800mA - 12A
CSA Acceptance	800mA - 10A
TUV	15A - 25A
PSE	1A - 15A
KTL	1A - 10A
CCC	1A - 10A
SEMKO	800mA - 12A

Interrupting Rating

500mA - 12A:	1,500 amperes at 250V AC
15A - 16A:	500 amperes at 250V AC
20A:	400 amperes at 250V AC
25A:	300 amperes at 250V AC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 12A and less. Ø1.0 mm for rating above 15A.

Packaging

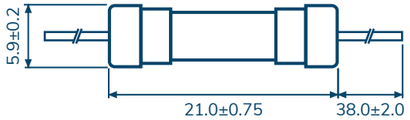
Packaging Option	Quantity
Bulk	500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Electrical Characteristics

Ampere Rating	Opening Time							
	1.5 In	2.1 In	2.75 In		4 In		10 In	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
500mA - 800mA	60 min	30 min	250 ms	80 sec	50 ms	5 sec	5 ms	150 ms
1A - 3.15A	60 min	30 min	750 ms	80 sec	95 ms	5 sec	10 ms	150 ms
4A - 6.3A	60 min	30 min	750 ms	80 sec	150 ms	5 sec	10 ms	150 ms
8A - 25A	30 min	30 min	750 ms	80 sec	150 ms	5 sec	10 ms	150 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I²t (A² sec.)
UDA-A .500	500mA	250V	0.2276	850	0.7290
UDA-A .630	630mA		0.1392	650	1.6880
UDA-A .800	800mA		0.1180	500	2.3040
UDA-A 001	1A		0.0730	350	6.5570
UDA-A 1.25	1.25A		0.0630	300	7.8125
UDA-A 1.60	1.6A		0.0600	200	8.9600
UDA-A 002	2A		0.0499	190	18.576
UDA-A 2.50	2.5A		0.0384	180	29.070
UDA-A 3.15	3.15A		0.0290	140	39.564
UDA-A 004	4A		0.0186	100	97.920
UDA-A 005	5A		0.0135	100	166.77
UDA-A 6.30	6.3A		0.0105	100	198.48
UDA-A 008	8A		0.0068	100	230.19
UDA-A 010	10A		0.0050	100	377.77
UDA-A 012	12A		0.0034	100	848.88
UDA-A 015	15A		0.0032	100	900.32
UDA-A 016	16A		0.0030	100	1086.6
UDA-A 020	20A		0.0023	100	1687.0
UDA-A 025	25A		0.0018	100	4121.4

Mechanical Dimensions (mm)



UDA-A

UDE/UDE-A

5.2Ø x 20 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	500mA - 25A
TUV	500mA - 25A

Interrupting Rating

500mA - 25A:	100 amperes at 500V AC
500mA - 3.15A:	1,500 amperes at 500V DC
4A - 12A:	500 amperes at 500V DC
16A - 25A:	400 amperes at 500V DC

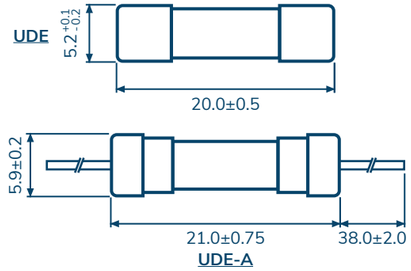
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 12A and less. Ø1.0 mm for rating above 16A.

Packaging

Packaging Option	Quantity
Bulk	**UDE:** 1,000 pcs / box **UDE-A:** 500 pcs / box
On Axial Tape & Reel	1,000 pcs / box

Mechanical Dimensions (mm)



UDE-A

Electrical Characteristics

Ampere Rating	Opening Time							
	1.5 In	2.1 In	2.75 In		4 In		10 In	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
500mA - 800mA	60 min	30 min	250 ms	80 sec	50 ms	5 sec	5 ms	150 ms
1A - 3.15A	60 min	30 min	750 ms	80 sec	95 ms	5 sec	10 ms	150 ms
4A - 6.3A	60 min	30 min	750 ms	80 sec	150 ms	5 sec	10 ms	150 ms
8A - 25A	30 min	30 min	750 ms	80 sec	150 ms	5 sec	10 ms	150 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Voltage Drop (mv) MAX	Nominal Melting I²t (A² sec.)
UDE / UDE-A .500	500mA	500V	0.1795	850	0.9128
UDE / UDE-A .630	630mA		0.1369	650	1.6324
UDE / UDE-A .800	800mA		0.1029	500	2.7936
UDE / UDE-A 001	1A		0.0710	350	4.2017
UDE / UDE-A 1.25	1.25A		0.0551	300	8.3700
UDE / UDE-A 1.60	1.6A		0.0690	200	9.1332
UDE / UDE-A 002	2A		0.0521	190	9.8964
UDE / UDE-A 2.50	2.5A		0.0411	180	20.053
UDE / UDE-A 3.15	3.15A		0.0294	140	39.650
UDE / UDE-A 004	4A		0.0193	100	78.739
UDE / UDE-A 005	5A		0.0137	100	97.946
UDE / UDE-A 6.30	6.3A		0.0113	100	117.15
UDE / UDE-A 008	8A		0.0058	100	209.32
UDE / UDE-A 010	10A		0.0050	100	382.68
UDE / UDE-A 012	12A		0.0049	100	578.15
UDE / UDE-A 016	16A		0.0033	100	1049.2
UDE / UDE-A 020	20A		0.0024	100	1733.0
UDE / UDE-A 025	25A		0.0016	100	4127.1

UXT

6.3Ø x 25.4 mm

British Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
CCC	1A - 13A
ASTA	1A - 13A

Electrical Characteristics

Ampere Rating	Opening Time	
	1.6 In	1.9 In
	MIN	MAX
1A - 13A	0.5 hr	0.5 hr

Interrupting Rating

6,000 amperes at 240V AC

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Wates Loes 100% In(n) Max	Nominal Melting I²t (A² sec.)
UXT 003	3A	240V	0.0368	1W	19.00
UXT 005	5A		0.0178	1W	81.00
UXT 007	7A		0.0112	1W	196.0
UXT 010	10A		0.0059	1W	576.0
UXT 013	13A		0.0046	1W	1000.0

* I²t values stated for 10 msec opening time

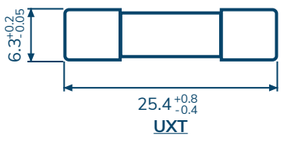
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Copper Alloy

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box

Mechanical Dimensions (mm)



AXT/AXT-A

6.3Ø x 25.4 mm

Time-Lag Fuse

Custom-designed for 4G base stations

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and U.S	1A - 50A

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
1A - 50A	4 hr	120 sec

Interrupting Rating

1A - 30A:	3,000 amperes at 60V AC/DC 1,500 amperes at 125V AC 2,000 amperes at 125V DC 1,500 amperes at 250V AC
35A - 50A:	2,000 amperes at 60V AC/DC 1,500 amperes at 125V AC 2,000 amperes at 125V DC 1,500 amperes at 250V AC

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
AXT / AXT-A 005	5A	60/125/250V	0.0199	43.290
AXT / AXT-A 006	6A		0.0173	76.824
AXT / AXT-A 010	10A		0.0078	319.20
AXT / AXT-A 015	15A		0.0051	657.55
AXT / AXT-A 020	20A		0.0039	1084.5
AXT / AXT-A 030	30A		0.0020	3858.3
AXT / AXT-A 040	40A		0.0013	9273.6
AXT / AXT-A 050	50A		0.0010	15868

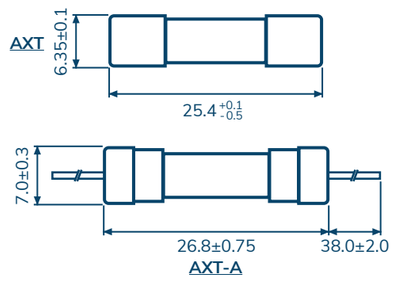
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Tin Plated Copper Alloy
Leads Wire	Ø0.8 mm 12A and less. Ø1.0 mm for rating above 13A to 19A. Ø1.2 mm for rating above 20A.

Packaging

Packaging Option	Quantity
Bulk	**AXT:** 500 pcs / box **AXT-A:** 250 pcs / box

Mechanical Dimensions (mm)



AFE/AFP-A

6.3Ø x 32 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	500mA - 10A
UL Recognized	12A - 30A
CSA Certified	500mA - 30A
PSE	**AFE:** 1A - 10A (250V) 1A - 5A (125V / 32V) **AFP-A:** 1A - 10A

Interrupting Rating

500mA - 10A:	10,000 amperes at 125V AC
500mA - 1A:	35 amperes at 250V AC
1.2A - 3.5A:	100 amperes at 250V AC
3.75A - 10A:	200 amperes at 250V AC
12A - 30A:	300 amperes at 32V AC 200 amperes at 125V AC 100 amperes at 250V AC

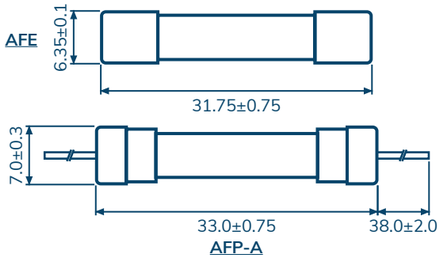
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass / Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 12A and less. Ø1.0 mm for rating above 13A to 19A. Ø1.2 mm for rating above 20A.

Packaging

Packaging Option	Quantity
Bulk	**AFE:** 500 pcs / box **AFP-A:** 250 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2 In
	MIN	MAX	MAX
500mA - 30A	4 hr	1 hr	5 sec
Above 30A	4 hr	1 hr	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
AFE / AFP-A .500	500mA	250V	0.5955	0.1603
AFE / AFP-A .600	600mA		0.4523	0.2013
AFE / AFP-A .630	630mA		0.4287	0.2143
AFE / AFP-A .700	700mA		0.3500	0.2646
AFE / AFP-A .750	750mA		0.3133	0.3544
AFE / AFP-A .800	800mA		0.2668	0.4032
AFE / AFP-A 001	1A		0.1978	0.7200
AFE / AFP-A 1.20	1.2A		0.1445	1.1664
AFE / AFP-A 1.50	1.5A		0.1165	1.8225
AFE / AFP-A 1.60	1.6A		0.0979	2.0736
AFE / AFP-A 002	2A		0.0716	5.7154
AFE / AFP-A 2.50	2.5A		0.0572	8.7581
AFE / AFP-A 003	3A		0.0422	13.885
AFE / AFP-A 3.15	3.15A		0.0401	13.926
AFE / AFP-A 3.20	3.2A		0.0396	14.280
AFE / AFP-A 3.50	3.5A		0.0350	18.879
AFE / AFP-A 004	4A		0.0313	26.208
AFE / AFP-A 4.50	4.5A		0.0252	38.088
AFE / AFP-A 005	5A		0.0230	49.968
AFE / AFP-A 006	6A		0.0205	70.378
AFE / AFP-A 6.30	6.3A		0.0172	84.199
AFE / AFP-A 007	7A		0.0158	111.50
AFE / AFP-A 7.50	7.5A		0.0148	124.87
AFE / AFP-A 008	8A		0.0136	137.35
AFE / AFP-A 010	10A		0.0107	209.95
AFE / AFP-A 012	12A	32V	0.0085	362.88
AFE / AFP-A 013	13A		0.0074	425.88
AFE / AFP-A 015	15A		0.0064	583.20
AFE / AFP-A 016	16A		0.0062	615.00
AFE / AFP-A 018	18A		0.0049	933.12
AFE / AFP-A 020	20A		0.0045	1080.0
AFE / AFP-A 025	25A		0.0036	2475.0
AFE / AFP-A 030	30A		0.0024	4412.9

ATE/ATP-A

6.3Ø x 32 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	500mA - 8A
CSA Certified	500mA - 8A
PSE	**ATE:** 1A - 8A (250V) 1A - 5A (125V / 32V) **ATP-A:** 1A - 8A

Interrupting Rating

500mA - 10A:	10,000 amperes at 125V AC
500mA - 1A:	35 amperes at 250V AC
1.2A - 3.5A:	100 amperes at 250V AC
3.75A - 8A:	200 amperes at 250V AC

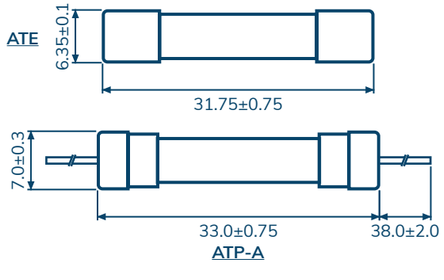
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass / Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 12A and less.

Packaging

Packaging Option	Quantity
Bulk	**ATE:** 500 pcs / box **ATP-A:** 250 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time			
	1 In	1.35 In	2 In	
	MIN	MAX	MIN	MAX
500mA - 8A	4 hr	1 hr	2 sec	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
ATE / ATP-A .500	500mA	250V	0.7628	0.2931
ATE / ATP-A .600	600mA		0.4902	0.4970
ATE / ATP-A .630	630mA		0.4895	0.5650
ATE / ATP-A .700	700mA		0.4123	0.7610
ATE / ATP-A 750	750mA		0.3739	0.9455
ATE / ATP-A 800	800mA		0.3354	1.3788
ATE / ATP-A 001	1A		0.2184	2.4644
ATE / ATP-A 1.25	1.25A		0.1481	5.3063
ATE / ATP-A 1.50	1.5A		0.1171	7.9578
ATE / ATP-A 002	2A		0.0735	18.603
ATE / ATP-A 2.50	2.5A		0.0569	30.076
ATE / ATP-A 003	3A		0.0483	42.152
ATE / ATP-A 3.50	3.5A		0.0377	67.156
ATE / ATP-A 004	4A		0.0309	92.160
ATE / ATP-A 005	5A		0.0152	95.562
ATE / ATP-A 006	6A		0.0135	170.61
ATE / ATP-A 6.30	6.3A		0.0114	186.38
ATE / ATP-A 007	7A		0.0105	221.77
ATE / ATP-A 008	8A		0.0097	314.55
ATE / ATP-A 010	10A		0.0070	504.56

ADL/ADP-A

6.3Ø x 32 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	**ADL:** 200mA - 10A **ADP-A:** 200mA - 8A
Recognized Component for Canada and US	**ADL:** 10.1A - 30A **ADP-A:** 8.1A - 30A
CSA Certified	**ADL:** 200mA - 10A **ADP-A:** 200mA - 8A
PSE	**ADL:** 1A - 15A (250V) 1A - 5A (125V / 32V) **ADP-A:** 1A - 15A

Interrupting Rating

200mA - 10A:	10,000 amperes at 125V AC
200mA - 1A:	35 amperes at 250V AC
1.2A - 3.5A:	100 amperes at 250V AC
3.75A - 30A:	200 amperes at 250V AC
10.1A - 30A:	1,000 amperes at 32V AC

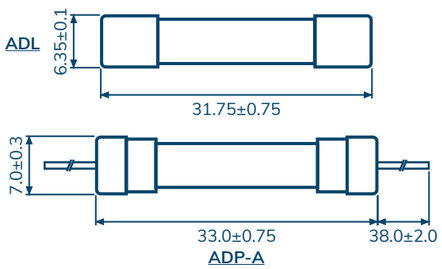
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass / Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 12A and less. Ø1.0 mm for rating above 13A to 19A. Ø1.2 mm for rating above 20A.

Packaging

Packaging Option	Quantity
Bulk	**ADL:** 500 pcs / box **ADP-A:** 250 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time			
	1 In	1.35 In	2 In	
	MIN	MAX	MIN	MAX
200mA - 3A	4 hr	1 hr	5 sec	120 sec
3.15A - 30A	4 hr	1 hr	12 sec	120 sec
Above 30A	4 hr	1 hr	12 sec	-

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
ADL / ADP-A .200	200mA	250V	6.6545	0.1400
ADL / ADP-A .250	250mA		3.4490	0.1875
ADL / ADP-A .300	300mA		3.1170	0.7477
ADL / ADP-A .315	315mA		2.9595	0.7520
ADL / ADP-A .350	350mA		2.9590	0.9211
ADL / ADP-A .375	375mA		1.9532	1.0078
ADL / ADP-A .400	400mA		1.9175	1.0944
ADL / ADP-A .500	500mA		1.0522	4.5000
ADL / ADP-A .600	600mA		0.7820	5.2000
ADL / ADP-A .630	630mA		0.7300	5.6700
ADL / ADP-A .700	700mA		0.6042	7.0560
ADL / ADP-A .800	800mA		0.5074	10.620
ADL / ADP-A 001	1A		0.3445	16.740
ADL / ADP-A 1.25	1.25A		0.2234	25.290
ADL / ADP-A 1.50	1.5A		0.1947	33.840
ADL / ADP-A 1.60	1.6A		0.1707	37.260
ADL / ADP-A 1.75	1.75A		0.1401	77.220
ADL / ADP-A 002	2A		0.1101	106.56
ADL / ADP-A 2.50	2.5A		0.0822	136.60
ADL / ADP-A 2.80	2.8A		0.0660	142.20
ADL / ADP-A 003	3A		0.0648	202.50
ADL / ADP-A 3.15	3.15A		0.0600	203.10
ADL / ADP-A 3.20	3.2A		0.0585	237.77
ADL / ADP-A 3.50	3.5A		0.0504	340.10
ADL / ADP-A 004	4A		0.0399	360.00
ADL / ADP-A 005	5A		0.0301	498.64
ADL / ADP-A 006	6A		0.0216	857.22
ADL / ADP-A 6.30	6.3A		0.0197	928.35
ADL / ADP-A 007	7A		0.0167	999.48
ADL / ADP-A 7.50	7.5A		0.0163	1323.3
ADL / ADP-A 008	8A		0.0162	1910.1
ADL / ADP-A 010	10A		0.0113	2426.7
ADL / ADP-A 012	12A		0.0082	3393.7
ADL / ADP-A 013	13A		0.0081	4277.7
ADL / ADP-A 015	15A		0.0064	5561.0
ADL / ADP-A 016	16A		0.0063	5760.0
ADL / ADP-A 018	18A		0.0048	6872.4
ADL / ADP-A 020	20A		0.0028	7560.0
ADL / ADP-A 025	25A		0.0034	17663
ADL / ADP-A 030	30A		0.0026	24300

ABB/ABB-A

6.3Ø x 32 mm

Super Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	1A - 30A

Interrupting Rating

1A - 20A:	200 amperes at 500V AC/DC
20.1A - 30A:	100 amperes at 500V AC/DC

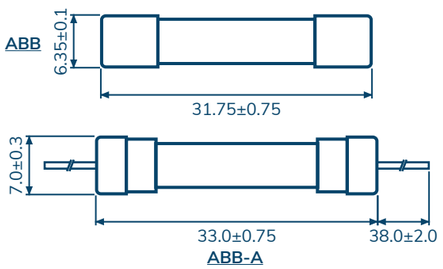
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 12A and less. Ø1.0 mm for rating above 13A to 14A. Ø1.2 mm for rating above 15A.

Packaging

Packaging Option	Quantity
Bulk	**ABB:** 500 pcs / box **ABB-A:** 250 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2.5 In
	MIN	MAX	MAX
1A - 15A	4 hr	120 sec	0.2 sec
15.1A - 30A	4 hr	300 sec	3 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
ABB / ABB-A 001	1A	500V	0.2399	1.1952
ABB / ABB-A 1.60	1.6A		0.1149	2.3454
ABB / ABB-A 002	2A		0.0840	3.8160
ABB / ABB-A 005	5A		0.0503	12.667
ABB / ABB-A 6.30	6.3A		0.0337	31.910
ABB / ABB-A 010	10A		0.0195	98.280
ABB / ABB-A 012	12A		0.0133	164.20
ABB / ABB-A 015	15A		0.0108	253.53
ABB / ABB-A 020	20A		0.0067	464.40
ABB / ABB-A 025	25A		0.0041	1512.0
ABB / ABB-A 030	30A		0.0036	1986.1

ABE

6.3Ø x 32 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	100mA - 15A
UL Recognized	15.1A - 30A
Recognized Component for Canada and US	15.1A - 40A
CSA Certified	100mA - 15A
CSA Acceptance	15.1A - 25A
PSE	5.1A - 15A (250V)

Interrupting Rating

100mA - 20A:	10,000 amperes at 125V AC
100mA - 10A:	750 amperes at 250V DC
100mA - 1A:	35 amperes at 250V AC
1.25A - 3.5A:	100 amperes at 250V AC
3.75A - 10A:	200 amperes at 250V AC
10.1A - 15A:	750 amperes at 250V AC/DC
15.1A - 20A:	750 amperes at 250V AC/DC
20.1A - 30A:	100 amperes at 250V AC 400 amperes at 125V DC 1,000 amperes at 125V AC
30.1A - 40A:	1,000 amperes at 250V AC 400 amperes at 150V DC

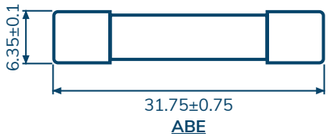
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass

Packaging

Packaging Option	Quantity
Bulk	500 pcs / box

Mechanical Dimensions (mm)



ABE

Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2 In
	MIN	MAX	MAX
100mA - 30A	4 hr	1 hr	30 sec
Above 30A	4 hr	1 hr	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
ABE .100	100mA	250V	14.600	0.0027
ABE .125	125mA		10.200	0.0042
ABE .150	150mA		7.7000	0.0061
ABE .160	160mA		7.0000	0.0069
ABE .200	200mA		6.0000	0.0108
ABE .250	250mA		3.6150	0.0141
ABE .300	300mA		2.8000	0.0243
ABE .315	315mA		2.3000	0.0267
ABE .350	350mA		2.0000	0.0441
ABE .375	375mA		1.9540	0.0443
ABE .400	400mA		1.4000	0.0720
ABE .500	500mA		0.6879	0.1603
ABE .600	600mA		0.4740	0.2013
ABE .630	630mA		0.4287	0.2143
ABE .700	700mA		0.3500	0.2646
ABE .750	750mA		0.3129	0.3544
ABE .800	800mA		0.2828	0.4032
ABE 001	1A		0.1886	0.7200
ABE 1.25	1.25A		0.1428	1.2713
ABE 1.50	1.5A		0.1132	1.8225
ABE 002	2A		0.1987	5.3880
ABE 2.50	2.5A		0.0794	5.6250
ABE 003	3A		0.0635	7.1280
ABE 3.50	3.5A		0.0538	10.584
ABE 004	4A		0.0329	13.824
ABE 4.50	4.5A		0.0302	27.338
ABE 005	5A		0.0286	33.750
ABE 006	6A		0.0233	58.450
ABE 6.30	6.3A		0.0184	73.514
ABE 007	7A		0.0164	88.200
ABE 7.50	7.5A		0.0143	101.25
ABE 008	8A		0.0124	115.20
ABE 010	10A		0.0105	255.46
ABE 012	12A		0.0086	398.39
ABE 013	13A		0.0085	517.14
ABE 015	15A		0.0061	567.00
ABE 016	16A		0.0060	645.12
ABE 018	18A		0.0055	874.80
ABE 020	20A		0.0044	1283.0
ABE 025	25A		0.0036	2691.0
ABE 030	30A		0.0026	4155.3
ABE 040	40A		0.0016	9100.8

ABP-A

6.3Ø x 32 mm

Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	100mA - 15A
UL Recognized	15.1A - 30A
Recognized Component for Canada and US	15.1A - 30A
CSA Certified	100mA - 15A
CSA Acceptance	15.1A - 25A
PSE	5.1A - 15A (250V)

Interrupting Rating

100mA - 20A:	10,000 amperes at 125V AC
100mA - 10A:	750 amperes at 250V DC
100mA - 1A:	35 amperes at 250V AC
1.25A - 3.5A:	100 amperes at 250V AC
3.75A - 10A:	200 amperes at 250V AC
10.1A - 15A:	750 amperes at 250V AC/DC
15.1A - 20A:	750 amperes at 250V AC/DC
20.1A - 30A:	100 amperes at 250V AC 400 amperes at 125V DC 1,000 amperes at 125V AC

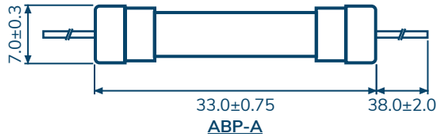
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 12A and less. Ø1.0 mm for rating above 13A to 19A. Ø1.2 mm for rating above 20A.

Packaging

Packaging Option	Quantity
Bulk	250 pcs / box

Mechanical Dimensions (mm)



ABP-A

Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2 In
	MIN	MAX	MAX
100mA - 30A	4 hr	1 hr	30 sec
Above 30A	4 hr	1 hr	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
ABP-A .100	100mA	250V	14.600	0.0027
ABP-A .125	125mA		10.200	0.0042
ABP-A .150	150mA		7.7000	0.0061
ABP-A .160	160mA		7.0000	0.0069
ABP-A .200	200mA		6.0000	0.0108
ABP-A .250	250mA		3.6150	0.0141
ABP-A .300	300mA		2.8000	0.0243
ABP-A .315	315mA		2.3000	0.0267
ABP-A .350	350mA		2.0000	0.0441
ABP-A .375	375mA		1.9540	0.0443
ABP-A .400	400mA		1.4000	0.0720
ABP-A .500	500mA		0.6879	0.1603
ABP-A .600	600mA		0.4740	0.2013
ABP-A .630	630mA		0.4287	0.2143
ABP-A .700	700mA		0.3500	0.2646
ABP-A .750	750mA		0.3129	0.3544
ABP-A .800	800mA		0.2828	0.4032
ABP-A 001	1A		0.1886	0.7200
ABP-A 1.25	1.25A		0.1428	1.2713
ABP-A 1.50	1.5A		0.1132	1.8225
ABP-A 002	2A		0.1987	5.3880
ABP-A 2.50	2.5A		0.0794	5.6250
ABP-A 003	3A		0.0635	7.1280
ABP-A 3.50	3.5A		0.0538	10.584
ABP-A 004	4A		0.0329	13.824
ABP-A 4.50	4.5A		0.0302	27.338
ABP-A 005	5A		0.0286	33.750
ABP-A 006	6A		0.0233	58.450
ABP-A 6.30	6.3A		0.0184	73.514
ABP-A 007	7A		0.0164	88.200
ABP-A 7.50	7.5A		0.0143	101.25
ABP-A 008	8A		0.0124	115.20
ABP-A 010	10A		0.0105	255.46
ABP-A 012	12A		0.0086	398.39
ABP-A 013	13A		0.0085	517.14
ABP-A 015	15A		0.0061	567.00
ABP-A 016	16A		0.0060	645.12
ABP-A 018	18A		0.0055	874.80
ABP-A 020	20A		0.0044	1283.0
ABP-A 025	25A		0.0036	2691.0
ABP-A 030	30A		0.0026	4155.3

ABF/ABF-A

6.3Ø x 32 mm

Super Fast-Acting Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	10A - 30A
TUV	16A - 30A

Interrupting Rating

10A - 12A:	20,000 amperes at 450V AC 1,000 amperes at 250V DC
16A - 25A:	10,000 amperes at 600V DC 50,000 amperes at 500V AC 20,000 amperes at 500V DC
30A:	50,000 amperes at 500V AC 20,000 amperes at 500V DC

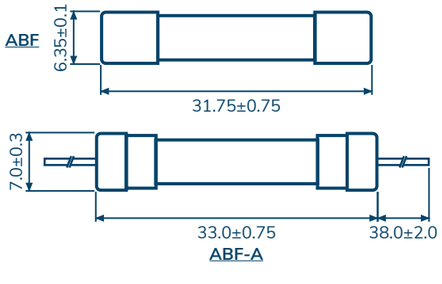
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 19A and less. Ø1.0 mm for rating above 20A to 30A

Packaging

Packaging Option	Quantity
Bulk	**ABF:** 500 pcs / box **ABF-A:** 250 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time		
	1.5 In	2 In	3 In
	MAX	MAX	MAX
10A - 30A	30 min	30 min	10 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
ABF / ABF-A 010	10A	450V / 250V	0.0166	111.50
ABF / ABF-A 012	12A		0.0119	198.10
ABF / ABF-A 016	16A	500V / 600V	0.0066	92.500
ABF / ABF-A 020	20A		0.0054	136.70
ABF / ABF-A 025	25A		0.0041	248.00
ABF / ABF-A 030	30A	500V	0.0036	322.00

ADA/APA-A

6.3Ø x 32 mm

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	**ADA:** 100mA - 20A **APA-A:** 100mA - 15A
UL Recognized	**APA-A only:** 15.1A - 20A
Recognized Component for Canada and US	20.1A - 30A
CSA Certified	100mA - 15A
CSA Acceptance	15.1A - 20A
PSE	5.1A - 15A (250V)

Interrupting Rating

100mA - 30A:	10,000 amperes at 125V AC
100mA - 1A:	35 amperes at 250V AC
1.25A - 3.5A:	100 amperes at 250V AC
3.75A - 10A:	200 amperes at 250V AC
10.1A - 15A:	750 amperes at 250V AC
15.1A - 20A:	1,500 amperes at 250V AC **(ADA)** 400 amperes at 250V AC **(APA-A)**
20.1A - 30A:	1,500 amperes at 250V AC 10,000 amperes at 125V DC

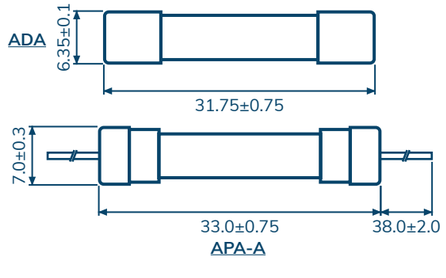
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass
Leads Wire	Ø0.8 mm 12A and less. Ø1.0 mm for rating above 13A to 19A. Ø1.2 mm for rating above 20A.

Packaging

Packaging Option	Quantity
Bulk	**ADA:** 500 pcs / box **APA-A:** 250 pcs / box

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time			
	1 In	1.35 In	2 In	
	MIN	MAX	MIN	MAX
100mA - 30A	4 hr	1 hr	2 sec	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
ADA / APA-A .100	100mA	250V	16.570	0.0200
ADA / APA-A .125	125mA		10.705	0.0313
ADA / APA-A .150	150mA		9.5450	0.0563
ADA / APA-A .160	160mA		8.3850	0.0640
ADA / APA-A .175	175mA		7.2250	0.0766
ADA / APA-A .180	180mA		6.0650	0.0879
ADA / APA-A .200	200mA		4.9050	0.1400
ADA / APA-A .250	250mA		4.3940	0.1875
ADA / APA-A .300	300mA		3.8881	0.7477
ADA / APA-A .315	315mA		3.8821	0.7520
ADA / APA-A .350	350mA		2.8762	0.9211
ADA / APA-A .375	375mA		2.2000	1.0078
ADA / APA-A .400	400mA		1.5237	1.0944
ADA / APA-A .500	500mA		0.8705	4.5000
ADA / APA-A .600	600mA		0.5779	0.4970
ADA / APA-A .700	700mA		0.4208	0.7610
ADA / APA-A .750	750mA		0.3801	0.9455
ADA / APA-A .800	800mA		0.3425	1.3788
ADA / APA-A 001	1A		0.2394	2.4644
ADA / APA-A 1.25	1.25A		0.1667	5.3063
ADA / APA-A 1.50	1.5A		0.1234	7.5265
ADA / APA-A 1.60	1.6A		0.1126	11.748
ADA / APA-A 002	2A		0.1993	7.8624
ADA / APA-A 2.50	2.5A		0.1208	11.674
ADA / APA-A 003	3A		0.0885	16.061
ADA / APA-A 3.50	3.5A		0.0823	28.190
ADA / APA-A 004	4A		0.0592	40.320
ADA / APA-A 4.50	4.5A		0.0453	56.984
ADA / APA-A 005	5A		0.0401	73.647
ADA / APA-A 006	6A		0.0308	116.96
ADA / APA-A 6.30	6.3A		0.0293	117.30
ADA / APA-A 007	7A		0.0156	119.50
ADA / APA-A 008	8A		0.0132	150.00
ADA / APA-A 010	10A		0.0098	270.00
ADA / APA-A 012	12A		0.0080	417.32
ADA / APA-A 013	13A		0.0076	587.91
ADA / APA-A 015	15A		0.0054	777.44
ADA / APA-A 020	20A		0.0043	1296.0
ADA / APA-A 025	25A		0.0030	2715.8
ADA / APA-A 030	30A		0.0024	4446.1

AUE

10.3Ø x 38.1 mm

RoHS

Agency Approvals

Agency	Ampere Rating
UL Listed	500mA - 3.5A
UL Recognized	4A - 30A
Recognized Component for Canada and US	30.1A - 60A
CSA Certified	500mA - 30A

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Glass / Caps: Nickel Plated Brass Option: Nickel Plated / Gold Plated Available
Ampere Rating	500mA to 80 A
Voltage Rating	250V and less

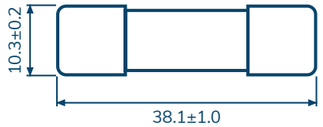
Electrical Characteristics

Ampere Rating	Opening Time			
	1 In	1.35 In	1.5 In	2 In
	MIN	MAX	MAX	MAX
500mA - 30A	4 hr	1 hr	-	120 sec
Above 30A	4 hr	-	1 hr	120 sec

Packaging

Packaging Option	Quantity
Bulk	150 pcs / box

Mechanical Dimensions (mm)



AUE

AUB

10.3Ø x 38.1 mm

RoHS

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Brass Option: Nickel Plated Available
Ampere Rating	500mA to 80A
Voltage Rating	600V and less

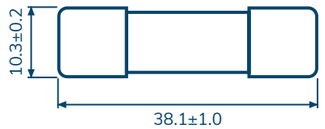
Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2 In
	MIN	MAX	MAX
500mA - 80A	4 hr	1 hr	120 sec

Packaging

Packaging Option	Quantity
Bulk	150 pcs / box

Mechanical Dimensions (mm)



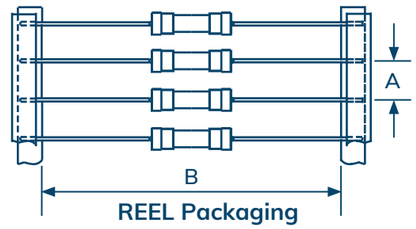
AUB

Ordering Options

Tape/Reel Specifications

Fuse Type	A (Pitch)	B (Tape Width)
2.8 x 7.1 mm	5 mm	53.0 mm
3.18 x 7.1 mm	5 mm	53.0 mm
3.6 x 10 mm	10 mm	56.5 mm
4.5 x 14.5 mm	10 mm	56.5 mm
5 x 20 mm	10 mm	52.0 mm
6 x 30 mm	10 mm	56.5 mm

To order, please specify "TR" after part number, (i.e. GST-A 1A 250V TR)

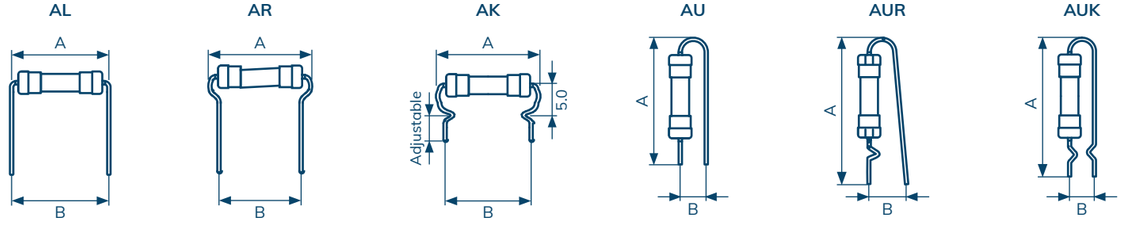


Radial Lead Forming Dimensions

Pig Tail Shapes*	Fuse Sizes							
	3.6 x 10 mm		4.5 x 14.5 mm		5 x 20 mm		6 x 30 mm	
	A**	B**	A**	B**	A**	B**	A**	B**
AL	13.8	13.8	18.0	18.0	25.0	25.0	35.0	35.0
AR	16.0	12.5	18.0	15.0	25.0	20.0	35.0	30.0
AK	-	-	18.0	16.0	26.0	21.5	36.0	32.0
AU	24.0	6.0	-	-	31.5	5.8	-	-
AUR	23.5	6.5	-	-	32.6	6.5	-	-
AUK	20.5	5.0	-	-	31.3	6.0	-	-

* To order, please specify "AL", "AR", "AK", or "AU" (i.e. GST-AL 1A 250V)

** Different values of A & B are available. Please contact factory for details.



HEAT SHRINK SLEEVE TUBING:

- Pig-tail fuses are available with heat-shrink tubing covering the fuse body.
- Tubing prevents contact with live parts, prevents shorting to circuit traces, and permits safe installation in tight spaces.
- Insulating tubing with ul listed and csa certified approval.

Power Fuse

Conquer's power fuses, with voltage ratings up to 1000V, offer optimal protection against overload and short-circuit events in high power AC/DC circuits.

K6F/K6F-R

10Ø x 38 mm

Over current protection in solar system

RoHS

Agency Approvals

Agency	Ampere Rating
Certified products for U.S. and Canada	6A - 30A
TUV	15A - 30A
CQC	15A - 30A

Electrical Characteristics

Ampere Rating	Opening Time							
	1 In	1.13 In	1.35 In		1.45 In		2 In	
	MIN	MIN	MIN	MAX	MIN	MAX	MIN	MAX
6A - 12A	4 hr	-	-	60 min	-	-	-	120 sec
15A - 30A	4 hr	60 min	-	60 min	-	60 min	-	240 sec

Interrupting Rating: 6A-12A

UL248-14	100,000 amperes at 600V AC 100,000 amperes at 600V DC

Interrupting Rating: 15A-30A

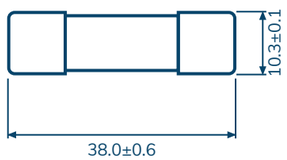
UL248-14	150,000 amperes at 600V AC 50,000 amperes at 600V DC
UL248-19	50,000 amperes at 600V DC
IEC60269-6 GB / T13539.6	10,000 amperes at 600V DC

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Watts Loss 70% In (W)	Watts Loss 100% In (W)	Nominal Melting I²t (A² sec.)
K6F/K6F-R 006	6A	600V	0.0268	1.05	2.4	50.72
K6F/K6F-R 012	12A		0.0108	1.7	4.3	258.19
K6F/K6F-R 015	15A		0.0081	2.2	5.4	51.64
K6F/K6F-R 020	20A		0.0049	2.6	6.3	206.48
K6F/K6F-R 025	25A		0.0037	3.1	6.9	1067.18
K6F/K6F-R 030	30A		0.0028	3.5	7.6	1740.00

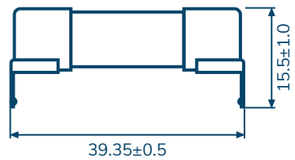
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Copper Alloy / Terminal: Tin Plated Copper

Mechanical Dimensions(mm)



K6F



K6F-R

Packaging

Packaging Option	Quantity
Bulk	**K6F:** 10 pcs / inner box 10 inner box / outside box **K6F-R:** 50 pcs / set 20 set / box

KSF/KSF-R

10Ø x 38 mm

Over current protection in solar system

2022 Taiwan Excellence Award Recipient

RoHS

Safety Approvals

Agency	Ampere Rating
Certified products for U.S. and Canada	15A-30A

Electrical Characteristics

Ampere Rating	Opening Time							
	1 In	1.13 In	1.35 In		1.45 In		2 In	
	MIN	MIN	MIN	MAX	MIN	MAX	MIN	MAX
15A-30A	4 hr	60 min	-	60 min	-	60 min	-	240 sec

Interrupting Rating

20,000 amperes at 1000V DC

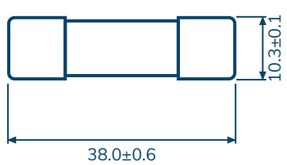
Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Watts Loss 70% In (W)	Watts Loss 100% In (W)	Clearing I²t (A² sec.)
KSF/KSF-R 015	15A	1000V	0.00854	1.24	3.06	365
KSF/KSF-R 020	20A	1000V	0.00505	1.33	3.22	804.3
KSF/KSF-R 025	25A	1000V	0.00396	1.66	4.28	1202
KSF/KSF-R 030	30A	1000V	0.00302	1.78	4.56	2229

Time constant ≤ 2.0 ms at DC test. (*I²t measured at 20 kA / 1000 Vdc)

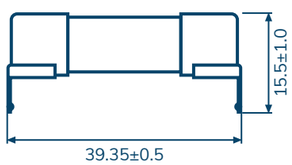
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Copper Alloy / Terminal: Tin Plated Copper

Mechanical Dimensions(mm)



KSF



KSF-R

Packaging

Packaging Option	Quantity
Bulk	**KSF:** 10 pcs / inner box 10 inner box / outside box **KSF-R:** 50 pcs / set 20 set / box

K5F

35.0Ø x 78.0 mm / 50.0Ø x 83.0 mm

Ideal for use in electric vehicles charging protection boards

2022 Taiwan Excellence Award Recipient

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	225A - 700A
CCC	225A - 700A

Interrupting Rating

225A - 400A:	150,000 amperes at 500V AC 50,000 amperes at 500V DC
450A -700A:	150,000 amperes at 500V AC 50,000 amperes at 500V DC

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Watts Loss 100% In (W)	I²t (A² Sec)	
				Pre-arc	Clearing at 500V
K5F 225	225A	500V	38W	6430	16800
K5F 250	250A		40W	10100	27700
K5F 275	275A		45W	11500	31600
K5F 300	300A		49W	17700	45600
K5F 325	325A		51W	24800	63500
K5F 350	350A		58W	36100	80600
K5F 400	400A		64W	36900	91300
K5F 450	450A		72W	80600	152000
K5F 500	500A		81W	109000	193000
K5F 600	600A		103W	178000	304000
K5F 700	700A		114W	244000	419000

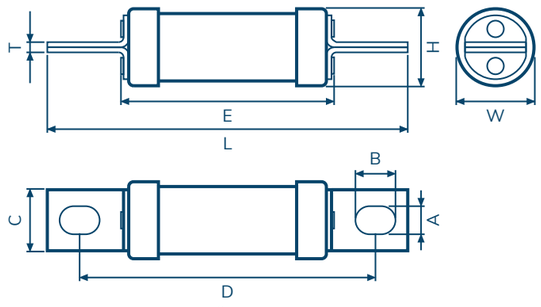
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Tin Plated Copper Terminal: Tin Plated Copper

Packaging

Packaging Option	Quantity	
Bulk	**225A-400A:** 10 pcs / box	**450A-700A:** 6 pcs / box

Mechanical Dimensions (mm)



K5F

K5F Series	A	B	C	D	E	H	L	T	W
225A - 400A	10.5±1.0	19.0±1.0	26.0±1.0	78.0±4.5	47.0±3.0	35.0±2.0	110.0±3.0	6.0±0.2	35.0±2.0
450A - 700A	10.5±1.0	16.0±1.0	38.0±1.0	83.0±4.5	57.0±3.0	50.0±2.0	112.0±3.0	6.0±0.2	50.0±2.0

K8F/K8F-A

24.1Ø x 91.6 mm / 35.2Ø x 95.0 mm

Ideal for use in electric vehicles charging protection boards

2022 Taiwan Excellence Award Recipient

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	50A - 400A

Interrupting Rating

50A - 150A:	100,000 amperes at 800V AC 50,000 amperes at 800V DC
160A -400A:	100,000 amperes at 800V AC 50,000 amperes at 800V DC

Catalog Number	Ampere Rating (A)	Voltage Rating (V)
K8F / K8F-A 050	50A	800V
K8F / K8F-A 075	75A	
K8F / K8F-A 100	100A	
K8F / K8F-A 125	125A	
K8F / K8F-A 150	150A	
K8F / K8F-A 160	160A	
K8F / K8F-A 175	175A	
K8F / K8F-A 200	200A	
K8F / K8F-A 225	225A	
K8F / K8F-A 250	250A	
K8F / K8F-A 300	300A	
K8F / K8F-A 350	350A	
K8F / K8F-A 400	400A	

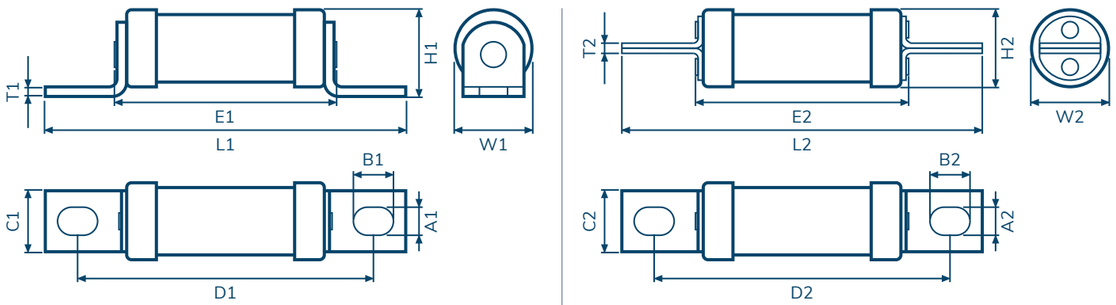
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Caps: Tin Plated Copper Terminal: Tin Plated Copper

Packaging

Packaging Option	Quantity	
Bulk	**50A-150A:** 20 pcs / box	**160A-400A:** 10 pcs / box

Mechanical Dimensions (mm)



K8F Series	A1	B1	C1	D1	E1	H1	L1	T1	W1
50A - 150A	8.8±1.0	12.4±1.0	19.1±1.0	91.6±3.6	69.0±3.0	27.1±2.0	111.6±3.0	3.0±0.2	24.1±2.0
160A - 400A	10.5±1.0	15.0±1.0	26.0±1.0	95.0±4.5	69.2±3.0	38.2±2.0	117.6±3.0	3.0±0.2	35.2±2.0
K8F-A Series	**A2**	**B2**	**C2**	**D2**	**E2**	**H2**	**L2**	**T2**	**W2**
50A - 150A	8.8±1.0	12.4±1.0	19.1±1.0	91.6±3.6	66.0±3.0	24.1±2.0	111.6±3.0	3.4±0.2	24.1±2.0
160A - 400A	10.5±1.0	15.0±1.0	26.0±1.0	95.0±4.5	69.2±3.0	35.2±2.0	117.6±3.0	6.0±0.2	35.2±2.0

EVS

10Ø x 38 mm

Compliant with the ISO 8820 standard

2022 Taiwan Excellence Award Recipient

Interrupting Rating

10,000 amperes at 275V AC
10,000 amperes at 450V DC
20,000 amperes at 500V DC

Electrical Characteristics

Ampere Rating	1.1 In	1.35 In		1.5 In	
	MIN	MIN	MAX	MIN	MAX
10A - 50A	4 hr	150 sec	3600 sec	10 sec	1000 sec

Ampere Rating	Opening Time					
	2 In		3 In		5 In	
	MIN	MAX	MIN	MAX	MIN	MAX
10A - 50A	500 ms	100 sec	100 ms	15 sec	50 ms	1 sec

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Copper Alloy / Terminal: Tin Plated Copper

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Max Voltage Drop (mv)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
EVS 010	10A	500V	200 mv	0.01153	323
EVS 015	15A	500V	200 mv	0.00665	1153
EVS 020	20A	500V	200 mv	0.00502	623
EVS 030	30A	500V	200 mv	0.00243	3024
EVS 040	40A	500V	200 mv	0.00171	7253
EVS 050	50A	500V	200 mv	0.00123	9203

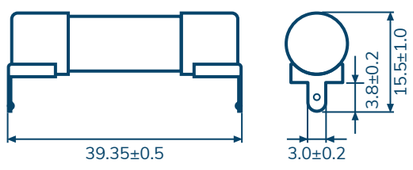
* Time constant (2.0 ± 0.5) ms at DC test

(*I^2t measured at 20 kA / 500 Vdc)

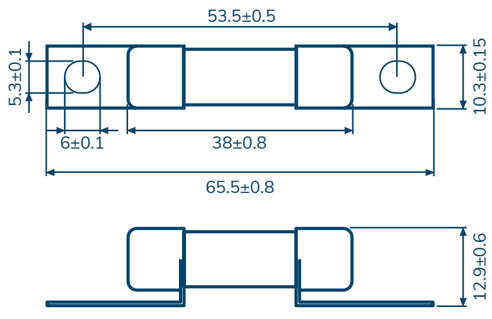
Packaging

Packaging Option	Quantity
Bulk	**PCBL (PCB Mount):** 50 pcs / set 20 set / box **BD (Bolt Down):** 40 pcs / set 20 set / box

Mechanical Dimensions(mm)



EVS PCBL (PCB Mount)



EVS BD (Bolt Down)

AUC

10.4Ø x 38.5 mm

Designed for use in large-scale air conditioning units

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	25A - 70A

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
25A - 70A	4 hr	120 sec

Interrupting Rating

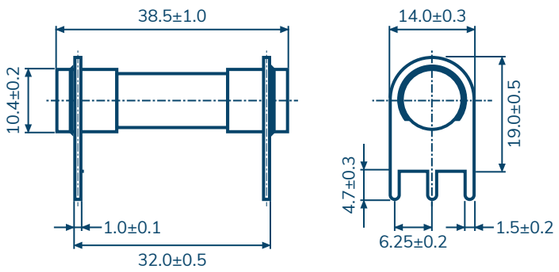
2,000 amperes at 500V AC
2,000 amperes at 250V AC
1,000 amperes at 125V DC

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
AUC 030	30A	250/500V	0.00283	675.00
AUC 040	40A		0.0019	2616.00
AUC 050	50A		0.0014	3975.00
AUC 063	63A		0.0011	6271.00
AUC 070	70A		0.0010	11760.0

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Copper Alloy / Terminal: Tin Plated Copper

Mechanical Dimensions(mm)



AUC

Packaging

Packaging Option	Quantity
Bulk	80 pcs / box

ALC

14.6Ø x 38.5 mm

Designed for over-current protection in high voltage applications

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	25A - 90A

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
25A - 63A	4 hr	120 sec
90A	4 hr	360 sec

Interrupting Rating

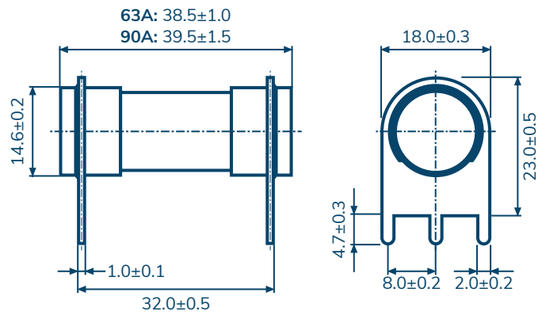
25A - 63A:	500 amperes at 125V DC 1,500 amperes at 600V AC 2,000 amperes at 250V AC
90A:	1,500 amperes at 500V AC

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
ALC 063	63A	250V / 600V	0.0013	9892.95
ALC 090	90A	500V	0.00085	9234.00

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Copper Alloy / Terminal: Tin Plated Copper

Mechanical Dimensions(mm)



ALC

Packaging

Packaging Option	Quantity
Bulk	60 pcs / box

AMC

14.6Ø x 22.3 mm

Suitable for the telecommunications industry

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	30A - 100A

Interrupting Rating

100,000 amperes at 170V DC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Nickel Plated Copper Alloy / Terminal: Tin Plated Copper

Packaging

Packaging Option	Quantity
Bulk	10 pcs / box

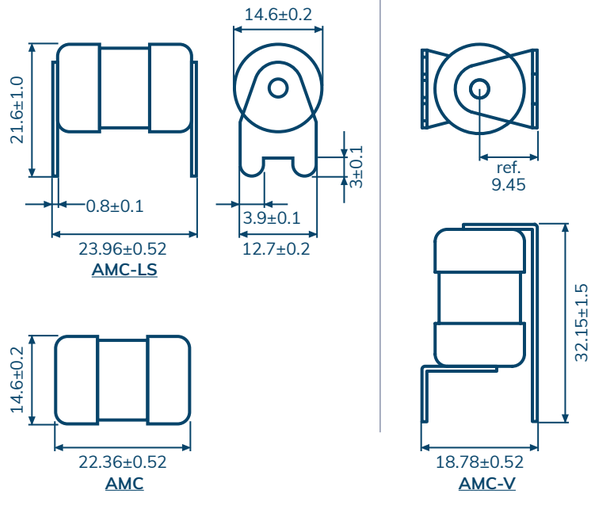
Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	1.35 In	2 In
	MIN	MAX	MAX
31A - 60A	4 hr	1 hr	6 min
61A - 100A	4 hr	2 hr	8 min

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
AMC 040	40A	170V	0.00156	1974
AMC 050	50A		0.00123	4139
AMC 060	60A		0.00090	6454
AMC 080	80A		0.00074	8236
AMC 100	100A		0.00057	10250

* I²t test at 170V short circuit

Mechanical Dimensions(mm)



BMC

17.4Ø x 42 mm

Ideal for use in electric vehicles charging protection boards

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	25A - 180A
CCC	50A - 180A

Interrupting Rating

160,000 amperes at 240V AC
50,000 amperes at 150V DC

Product Characteristics

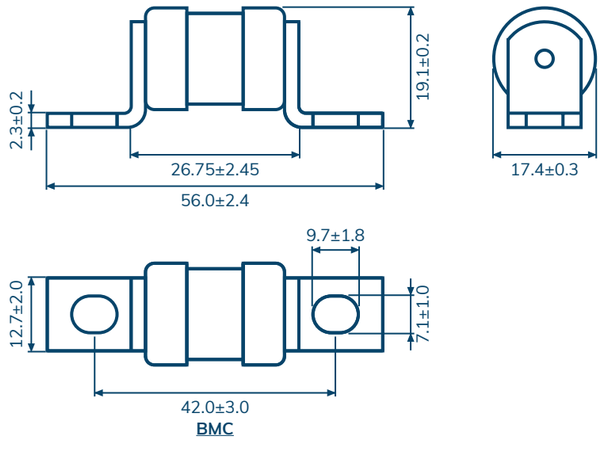
Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic / Caps: Tin Plated Copper Alloy / Terminal: Tin Plated Copper

Packaging

Packaging Option	Quantity
Bulk	10 pcs / box

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Watts Loss 100% In (W)	Clearing at 240V I²t (A² sec.)
BMC 050	50A	240V	0.00183	8.800	2463.00
BMC 060	60A		0.00156	11.00	3574.30
BMC 070	70A		0.00117	12.50	4047.00
BMC 080	80A		0.00098	13.70	5447.00
BMC 100	100A		0.00072	16.20	8352.00
BMC 125	125A		0.00060	22.00	10077.0
BMC 150	150A		0.00049	25.00	15100.0
BMC 180	180A		0.00038	25.00	17268.0

Mechanical Dimensions(mm)



Fuse Accessories

Fuse accessories are designed to make the fuse to be easily installed and replaced. They can be used for varies of circuits and industrial applications. There are several surface coatings and materials to satisfy the requirements of specific rated current, dielectric strength and insulation resistance.

AST

Mini-Blade Type, Transparent Body

Pb RoHS

Ampere Rating	Body Color	Voltage Rating
2 A	Gray	32 V
3 A	Violet	
4 A	Light Pink	
5 A	Tan	
7.5 A	Brown	
10 A	Red	
15 A	Light Blue	
20 A	Yellow	
25 A	Natural	
30 A	Light Green	

ATQ

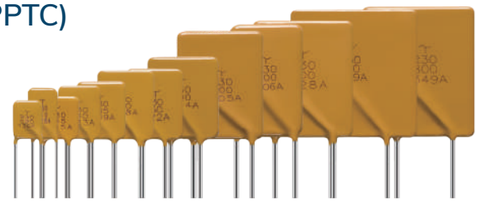
Blade Type, Transparent Body

Pb RoHS

Ampere Rating	Body Color	Voltage Rating
2 A	Gray	32 V
3 A	Violet	
4 A	Pink	
5 A	Tan	
7.5 A	Brown	
10 A	Red	
15 A	Light Blue	
20 A	Yellow	
25 A	Natural	
30 A	Light Green	
35 A	Purple	

R30

Polymeric Positive Temperature Coefficient (PPTC)



Agency Approvals

Agency	Agency File Number
UL	E201504 / E319079
TUV	R50274672

Packaging

Packaging Option	Applicable Products	Quantity
Bulk	All	500 pieces per box
Reel Pack	R30-090 to R30-250	3,000 pieces per box
	R30-300 to R30-400	1,500 pieces per box

Electrical Properties

Model	V_{max} (VDC)[1]	I_{max} (A)[2]	I_{hold} at 25°C (A)[3]	I_{trip} at 25°C (A)[4]	P_d max (W)[5]	Maximum Time to Trip		Resistance			Agency Approval	
						Current (A)	Time (Sec)	Ri_{min} (Ω)[6]	Ri_{max} (Ω)[6]	$R1_{max}$ (Ω)[7]	UL	TUV-PS
R30-030	30	40	0.30	0.60	0.44	8.00	0.3	0.370	0.720	1.080		
R30-040	30	40	0.40	0.80	0.45	8.00	0.3	0.250	0.430	0.645		
R30-050	30	40	0.50	1.00	0.46	8.00	0.3	0.150	0.400	0.600		
R30-065	30	40	0.65	1.30	0.47	8.00	0.4	0.120	0.300	0.450		
R30-075	30	40	0.75	1.50	0.48	8.00	0.4	0.100	0.250	0.375		
R30-090	30	40	0.90	1.80	0.60	4.50	5.9	0.070	0.145	0.220	•	•
R30-110	30	40	1.10	2.20	0.70	5.50	6.6	0.050	0.120	0.170	•	•
R30-135	30	40	1.35	2.70	0.80	6.75	7.3	0.040	0.085	0.130	•	•
R30-160	30	40	1.60	3.20	0.90	8.00	8.0	0.030	0.070	0.110	•	•
R30-185	30	40	1.85	3.70	1.00	9.25	8.7	0.030	0.060	0.090	•	•
R30-250	30	40	2.50	5.00	1.20	12.50	10.3	0.020	0.040	0.070	•	•
R30-300	30	40	3.00	6.00	2.00	15.00	10.8	0.020	0.050	0.080	•	•
R30-400	30	40	4.00	8.00	2.50	20.00	12.7	0.010	0.030	0.050	•	•
R30-500	30	40	5.00	10.00	3.00	25.00	14.5	0.010	0.030	0.050	•	•
R30-600	30	40	6.00	12.00	3.50	30.00	16.0	0.005	0.020	0.040	•	•
R30-700	30	40	7.00	14.00	3.80	35.00	17.5	0.005	0.020	0.030	•	•
R30-800	30	40	8.00	16.00	4.00	40.00	18.8	0.005	0.020	0.020	•	•
R30-900	30	40	9.00	18.00	4.20	40.00	20.0	0.005	0.010	0.020	•	•

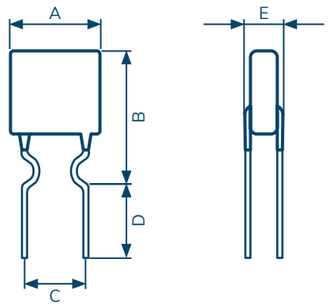
- V_{max} = Maximum voltage device can withstand without damage at rated current (Imax)
- I_{max} = Maximum fault current device can withstand without damage at rated voltage (Vmax)
- I_{hold} = hold current: maximum current device will sustain for 4 hours without tripping (at 25 °C, still air)
- I_{trip} = trip current: minimum current at which the device will trip (at 25 °C, still air)
- P_d = power dissipated from device when in the tripped state (at 25 °C, still air)
- $Ri_{min/max}$ = minimum/maximum resistance of device in initial (un-soldered) state
- $R1_{max}$ = maximum resistance of device at 25 °C, measured one hour after tripping

CAUTION: operation beyond the specified ratings may result in damage and possible arcing and flame

Product Characteristics

Operating Temperature	-40 °C to +85 °C
Maximum Device Surface Temperature	In Tripped State, 125 °C
Passive Aging	85 °C, 1000 hours, ±5% Typical Resistance Change
Humidity Aging	85 °C, 85% R.H., 1000 hours, ±5% Typical Resistance Change
Thermal Shock	+85 °C to -40 °C, 20 times, ±10% Typical Resistance Change
Vibration	MIL-STD-202, Method 201, 1 No Change

Mechanical Dimensions

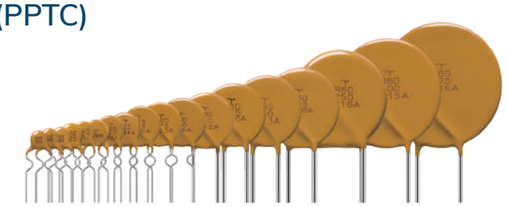


Physical Dimension

Model	Material	Physical Dimensions (Unit: mm/In)					Lead Style
		A (Max.)	B (Max.)	C (Typ.)	D (Min.)	E (Max.)	
R30-030	Tin Plated Copper-Clad Steel (24 AWG), Ø 0.51 mm (0.020 in)	7.4 / 0.29	10.2 / 0.40	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-040		7.4 / 0.29	11.4 / 0.45	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-050		7.4 / 0.29	11.4 / 0.45	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-065		7.4 / 0.29	11.4 / 0.45	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-075		7.4 / 0.29	11.4 / 0.45	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-090		7.4 / 0.29	12.2 / 0.48	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Kink
R30-110		7.4 / 0.29	14.2 / 0.56	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Kink
R30-135		8.9 / 0.35	13.5 / 0.53	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Kink
R30-160		8.9 / 0.35	15.2 / 0.60	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Kink
R30-185		10.2 / 0.40	15.7 / 0.62	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Kink
R30-250		11.4 / 0.45	18.3 / 0.72	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Kink
R30-300	Tin Plated Copper (20 AWG), Ø 0.81 mm (0.032 in)	11.4 / 0.45	17.3 / 0.68	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-400		14.0 / 0.55	20.1 / 0.79	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-500		14.0 / 0.55	24.9 / 0.98	10.2 / 0.4	7.6 / 0.3	3.0 / 0.12	Straight
R30-600		16.5 / 0.65	24.9 / 0.98	10.2 / 0.4	7.6 / 0.3	3.0 / 0.12	Straight
R30-700		19.1 / 0.75	26.7 / 1.05	10.2 / 0.4	7.6 / 0.3	3.0 / 0.12	Straight
R30-800		21.6 / 0.85	29.2 / 1.15	10.2 / 0.4	7.6 / 0.3	3.0 / 0.12	Straight
R30-900		24.1 / 0.95	29.7 / 1.17	10.2 / 0.4	7.6 / 0.3	3.0 / 0.12	Straight

R60

Polymeric Positive Temperature Coefficient (PPTC)



Agency Approvals

Agency	Agency File Number
UL	E201504 / E319079
TUV	R50274672

Packaging

Packaging Option	Applicable Products	Quantity
Bulk	All	500 pieces per box
Reel Pack	R60-010 to R60-090	3,000 pieces per box
	R60-017	2,500 pieces per box
	R60-110 to R60-185	1,500 pieces per box
	R60-250 to R60-375	-

Electrical Properties

Model	V_{max} (VDC)[1]	I_{max} (A)[2]	I_{hold} at 25°C (A)[3]	I_{trip} at 25°C (A)[4]	P_d max (W)[5]	Maximum Time to Trip		Resistance			Agency Approval	
						Current (A)	Time (Sec)	Ri_{min} (Ω)[6]	Ri_{max} (Ω)[6]	$R1_{max}$ (Ω)[7]	UL	TUV-PS
R60-010	60	40	0.10	0.20	0.38	0.50	4.0	2.50	4.50	7.50	•	•
R60-017	60	40	0.17	0.34	0.48	0.85	3.0	2.50	5.21	8.00	•	•
R60-020	60	40	0.20	0.40	0.41	1.00	2.2	1.25	2.75	4.40	•	•
R60-025	60	40	0.25	0.50	0.45	1.25	2.5	0.65	1.95	3.00	•	•
R60-030	60	40	0.30	0.60	0.49	1.50	3.0	0.45	1.33	2.10	•	•
R60-040	60	40	0.40	0.80	0.56	2.00	3.8	0.40	0.86	1.29	•	•
R60-050	60	40	0.50	1.00	0.77	2.50	4.0	0.35	0.77	1.17	•	•
R60-065	60	40	0.65	1.30	0.88	3.25	5.3	0.25	0.48	0.72	•	•
R60-075	60	40	0.75	1.50	0.92	3.75	6.3	0.20	0.40	0.60	•	•
R60-090	60	40	0.90	1.80	0.99	4.50	7.2	0.15	0.31	0.47	•	•
R60-110	60	40	1.10	2.20	1.50	5.50	8.2	0.13	0.25	0.38	•	•
R60-135	60	40	1.35	2.70	1.70	6.75	9.6	0.10	0.19	0.30	•	•
R60-160	60	40	1.60	3.20	1.90	8.00	11.4	0.07	0.14	0.22	•	•
R60-185	60	40	1.85	3.70	2.10	9.25	12.6	0.06	0.12	0.19	•	•
R60-250	60	40	2.50	5.00	2.50	12.50	15.6	0.04	0.08	0.13	•	•
R60-300	60	40	3.00	6.00	2.80	15.00	19.8	0.03	0.06	0.10	•	•
R60-375	60	40	3.75	7.50	3.20	18.75	24.0	0.02	0.05	0.08	•	•

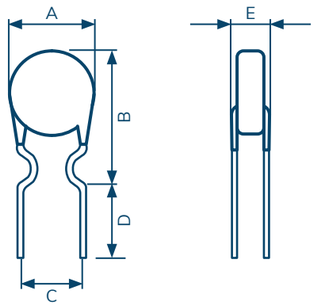
- V_{max} = Maximum voltage device can withstand without damage at rated current (Imax)
- I_{max} = Maximum fault current device can withstand without damage at rated voltage (Vmax)
- I_{hold} = hold current: maximum current device will sustain for 4 hours without tripping (at 25 °C, still air)
- I_{trip} = trip current: minimum current at which the device will trip (at 25 °C, still air)
- P_d = power dissipated from device when in the tripped state (at 25 °C, still air)
- $Ri_{min/max}$ = minimum/maximum resistance of device in initial (un-soldered) state
- $R1_{max}$ = maximum resistance of device at 25 °C, measured one hour after tripping

CAUTION: operation beyond the specified ratings may result in damage and possible arcing and flame

Product Characteristics

Operating Temperature	-40 °C to +85 °C
Maximum Device Surface Temperature	In Tripped State, 125 °C
Passive Aging	85 °C, 1000 hours, ±5% Typical Resistance Change
Humidity Aging	85 °C, 85% R.H., 1000 hours, ±5% Typical Resistance Change
Thermal Shock	+85 °C to -40 °C, 20 times, ±10% Typical Resistance Change
Vibration	MIL-STD-202, Method 201, 1 No Change

Mechanical Dimensions



Physical Dimension

Model	Material	Physical Dimensions (Unit: mm/In)					Lead Style
		A (Max.)	B (Max.)	C (Typ.)	D (Min.)	E (Max.)	
R60-010	Tin Plated Copper alloy, 0.205mm² (24AWG), Ø0.51mm (0.020 in).	7.4 / 0.29	12.7 / 0.50	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Kink
R60-017	Tin Plated Copper-Clad Steel, 0.205mm² (24AWG), Ø0.51mm (0.020 in)	7.4 / 0.29	12.7 / 0.50	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Kink
R60-020		7.4 / 0.29	12.7 / 0.48	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Kink
R60-025		7.4 / 0.29	12.7 / 0.50	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Kink
R60-030		7.4 / 0.29	13.0 / 0.51	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Kink
R60-040		7.6 / 0.30	13.5 / 0.53	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Kink
R60-050	Tin Plated Copper, 0.205mm² (24AWG), Ø0.51mm (0.020 in)	7.9 / 0.31	13.7 / 0.54	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Kink
R60-065		9.7 / 0.38	14.5 / 0.57	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Kink
R60-075		10.4 / 0.41	15.2 / 0.60	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Kink
R60-090		11.7 / 0.46	15.8 / 0.62	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Kink
R60-110	Tin Plated Copper, 0.52mm² (20AWG), Ø0.81mm (0.032 in)	13.0 / 0.51	18.0 / 0.71	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Straight
R60-135		14.5 / 0.57	19.6 / 0.77	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Straight
R60-160		16.3 / 0.64	21.3 / 0.84	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Straight
R60-185		17.8 / 0.70	22.9 / 0.90	5.1 / 0.2	7.6 / 0.3	3.1 / 0.12	Straight
R60-250		21.3 / 0.84	26.4 / 1.04	10.2 / 0.4	7.6 / 0.3	3.1 / 0.12	Straight
R60-300		24.9 / 0.98	30.0 / 1.18	10.2 / 0.4	7.6 / 0.3	3.1 / 0.12	Straight
R60-375		28.5 / 1.12	33.5 / 1.32	10.2 / 0.4	7.6 / 0.3	3.1 / 0.12	Straight

mSMD(1812) Series

Polymeric Positive Temperature Coefficient (PPTC)

Agency Approvals

Agency	Agency File Number
UL	E201504 / E319079
TUV	R50481056

Packaging

Packaging Option	Quantity
Tape & Reel	1,500 pieces per box

Electrical Properties

Model	V_{max} (VDC)[1]	I_{max} (A)[2]	I_{hold} at 25°C (A)[3]	I_{trip} at 25°C (A)[4]	P_d max (W)[5]	Maximum Time to Trip		Resistance		Agency Approval	
						Current (A)	Time (Sec)	Ri_{min} (Ω)[6]	$R1_{max}$ (Ω)[7]	UL	TUV
mSMD010	30.0	100	0.10	0.30	0.8	0.5	1.50	0.750	15.00	•	•
mSMD014	60.0	100	0.14	0.34	0.8	1.5	0.15	0.650	6.000	•	•
mSMD020	30.0	100	0.20	0.40	0.8	8.0	0.02	0.350	5.000		•
mSMD030	30.0	100	0.30	0.60	0.8	8.0	0.10	0.250	3.000	•	•
mSMD050-15V	15.0	100	0.50	1.00	0.8	8.0	0.15	0.150	1.000	•	•
mSMD050-33V	33.0	100	0.50	1.00	0.8	8.0	0.15	0.150	1.000	•	•
mSMD050-60V	60.0	100	0.50	1.00	0.8	8.0	0.15	0.150	1.000	•	•
mSMD075	13.2	100	0.75	1.50	0.8	8.0	0.20	0.090	0.450	•	•
mSMD110	8.00	100	1.10	2.20	0.8	8.0	0.30	0.050	0.250	•	•
mSMD110-16V	16.0	100	1.10	2.20	0.8	8.0	0.30	0.050	0.250	•	•
mSMD125	16.0	100	1.25	2.50	0.8	8.0	0.40	0.050	0.140		•
mSMD150	8.00	100	1.50	3.00	0.8	8.0	0.50	0.040	0.160	•	•
mSMD150-16V	16.0	100	1.50	3.00	0.8	8.0	0.50	0.040	0.160	•	•
mSMD160	8.00	100	1.60	2.80	0.8	8.0	1.00	0.030	0.130	•	•
mSMD200	8.00	100	2.00	4.00	0.8	8.0	2.00	0.015	0.100	•	•
mSMD260	8.00	100	2.60	5.00	0.8	8.0	2.50	0.015	0.050	•	•
mSMD300	8.00	100	3.00	5.00	0.8	8.0	4.00	0.012	0.040		•
mSMD350	6.00	100	3.50	6.00	2.0	10.0	4.00	0.008	0.030		•

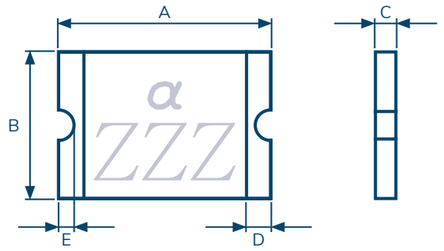
- V_{max} = Maximum voltage device can withstand without damage at rated current (Imax)
- I_{max} = Maximum fault current device can with stand without damage at rated voltage (Vmax)
- I_{hold} = hold current: maximum current device will sustain for 4 hours without tripping (at 25 °C, still air)
- I_{trip} = trip current: minimum current at which the device will trip (at 25 °C, still air)
- P_d = power dissipated from device when in the tripped state (at 25 °C, still air)
- $Ri_{min/max}$ = minimum/maximum resistance of device in initial (un-soldered) state
- $R1_{max}$ = maximum resistance of device at 25 °C, measured one hour after tripping

CAUTION: operation beyond the specified ratings may result in damage and possible arcing and flame

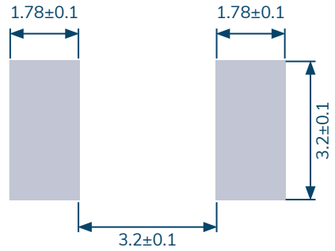
Product Characteristics

Operating Temperature	-40 °C to +85 °C
Maximum Device Surface Temperature	In Tripped State, 125 °C
Passive Aging	85 °C, 1000 hours, ±5% Typical Resistance Change
Humidity Aging	85 °C, 85% R.H., 1000 hours, ±5% Typical Resistance Change
Thermal Shock	+85 °C to -40 °C, 20 times, ±33% Typical Resistance Change
Vibration	MIL-STD-202, Method 201, No Resistance Change

Mechanical Dimensions



Recommended Layout



Physical Properties

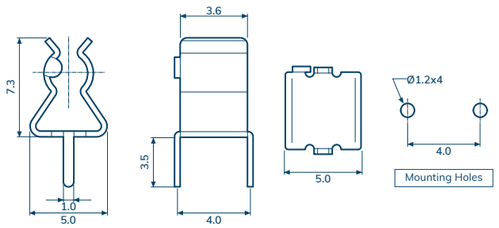
Model	Material	A		B		C		D	E
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
mSMD010	Tin-Plated Nickel-Copper	4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.25
mSMD014		4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.25
mSMD020		4.37	4.73	3.07	3.41	0.50	1.30	0.30	0.25
mSMD030		4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.25
mSMD050-15V		4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.25
mSMD050-33V		4.37	4.73	3.07	3.41	0.60	1.60	0.30	0.25
mSMD050-60V		4.37	4.73	3.07	3.41	0.90	1.80	0.30	0.25
mSMD075		4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.25
mSMD110		4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.25
mSMD110-16V		4.37	4.73	3.07	3.41	0.60	1.30	0.30	0.25
mSMD125		4.37	4.73	3.07	3.41	0.60	1.30	0.30	0.25
mSMD150	Tin-Plated Nickel-Copper	4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.25
mSMD150-16V		4.37	4.73	3.07	3.41	0.60	1.30	0.30	0.25
mSMD160		4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.25
mSMD200		4.37	4.73	3.07	3.41	0.60	1.30	0.30	0.25
mSMD260		4.37	4.73	3.07	3.41	0.60	1.30	0.30	0.25
mSMD300		4.37	4.73	3.07	3.41	0.50	1.30	0.30	0.25
mSMD350		4.37	4.73	3.07	3.41	0.50	1.30	0.30	0.25

Conquer fuse clips are professional designed for varies of circuits and fusing applications. These clips are available in several finishing's and base materials which meet specific current, strength, and conductivity requirements.

CQ-301B

For 3.6mm Dia. Fuses

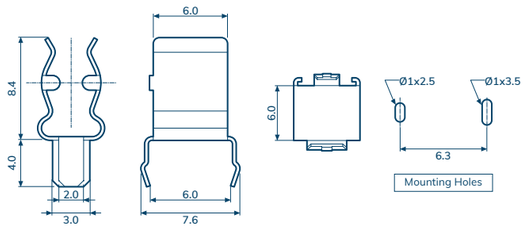
RoHS



CQ-203B

For 5mm Dia. Fuses

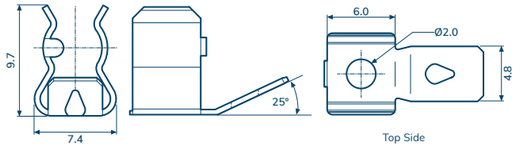
RoHS



CQ-203E

For 5mm Dia. Fuses

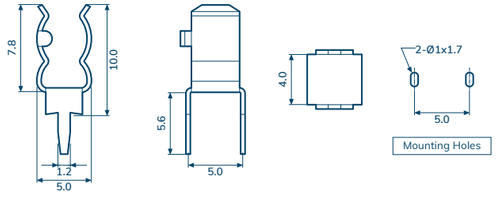
RoHS



CQ-203H

For 5mm Dia. Fuses

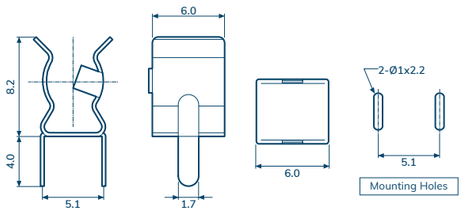
RoHS



CQ-203LR

For 5mm Dia. Fuses

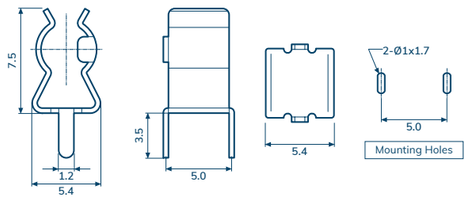
RoHS



CQ-203P

For 5mm Dia. Fuses

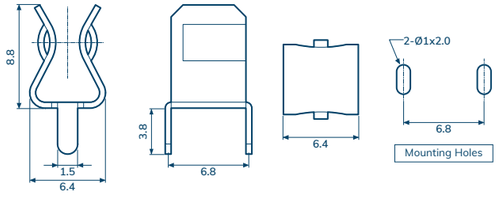
RoHS



CQ-203S

For 5mm Dia. Fuses

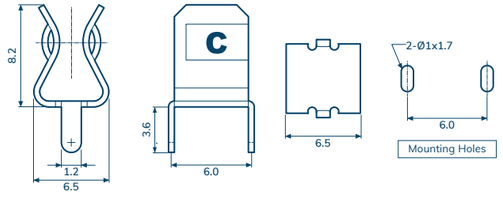
RoHS



CQ-203SF(C)

For 5mm Dia. Fuses

RoHS



Item Number	CQ-301B	CQ-203B	CQ-203E	CQ-203H
Metal Material	Brass	Phosphor Bronze	Phosphor Bronze	Brass
Material Thickness	0.4 mm	0.3 mm	0.5 mm	0.4 mm
Suitable Rated Current	10 A	10 A	15 A	10 A
Fuse Type	Ear Type	Ear Type	Ear Type	Ear Type
Plating Type	Bright Tin Plated	Bright Tin Plated	Bright Tin Plated	Bright Tin Plated

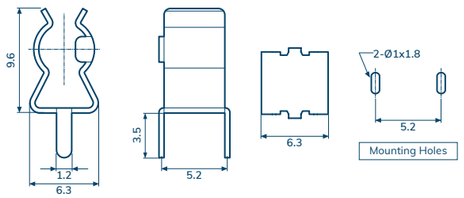
Item Number	CQ-203LR	CQ-203P	CQ-203S	CQ-203SF(C)
Metal Material	Phosphor Bronze	Brass	Brass	Brass
Material Thickness	0.3 mm	0.4 mm	0.5 mm	0.4 mm
Suitable Rated Current	10 A	10 A	15 A	10 A
Fuse Type	Ear Type	Ear Type	Ear Type	Ear Type
Plating Type	Bright Tin Plated	Bright Tin Plated	Bright Tin Plated	Bright Tin Plated

Conquer fuse clips are professional designed for varies of circuits and fusing applications. These clips are available in several finishing's and base materials which meet specific current, strength, and conductivity requirements.

CQ-203SP

For 5mm Dia. Fuses

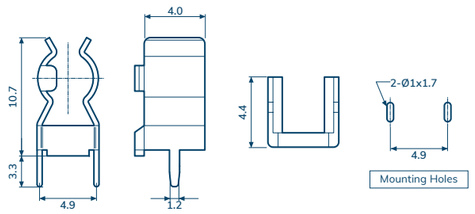
RoHS



CQ-203T

For 5mm Dia. Fuses

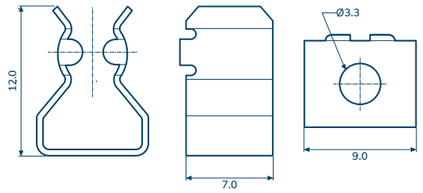
RoHS



CQ-205E

For 6.3mm Dia. Fuses

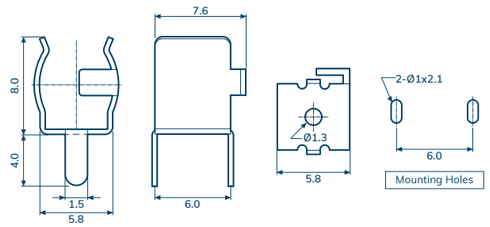
RoHS



CQ-205DH

For 6.3mm Dia. Fuses

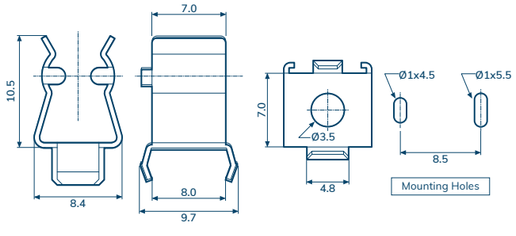
RoHS



CQ-205B

For 6.3mm Dia. Fuses

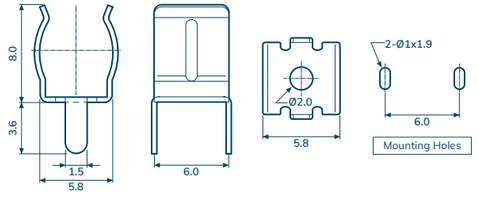
RoHS



CQ-205D

For 6.3mm Dia. Fuses

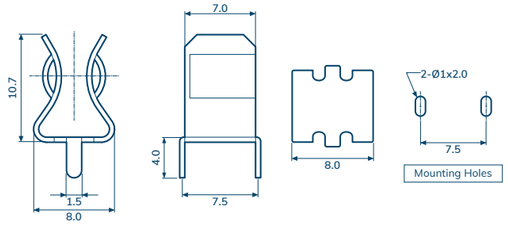
RoHS



CQ-205S

For 6.3mm Dia. Fuses

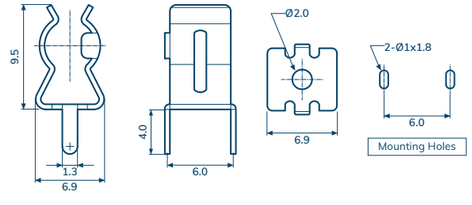
RoHS



CQ-205SPP

For 6.3mm Dia. Fuses

RoHS



Item Number	CQ-203SP	CQ-203T	CQ-205B	CQ-205D
Metal Material	Brass	Brass	Brass	Brass
Material Thickness	0.4 mm	0.4 mm	0.5 mm	0.4 mm
Suitable Rated Current	10 A	10 A	15 A	15 A
Fuse Type	Ear Type	Ear Type	Ear Type	Earless Type
Plating Type	Bright Tin Plated	Bright Tin Plated	Bright Tin Plated	Bright Tin Plated

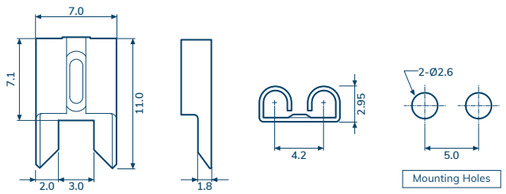
Item Number	CQ-205E	CQ-205DH	CQ-205S	CQ-205SPP
Metal Material	Phosphor Bronze	Phosphor Bronze	Brass	Phosphor Bronze
Material Thickness	0.5 mm	0.4 mm	0.5 mm	0.5 mm
Suitable Rated Current	15 A	15 A	25 A	15 A
Fuse Type	Ear Type	Ear Type	Ear Type	Ear Type
Plating Type	Bright Tin Plated	Bright Tin Plated	Bright Tin Plated	Bright Tin Plated

Conquer fuse clips are professional designed for varies of circuits and fusing applications. These clips are available in several finishing's and base materials which meet specific current, strength, and conductivity requirements.

CQ-111

For Blade
Auto Fuse ATQ Type

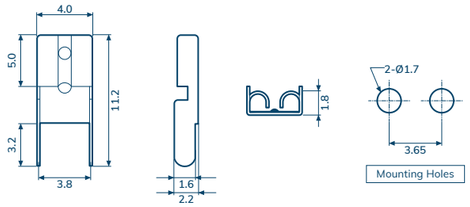
RoHS



CQ-112

For AST
Mini Blade Type Fuse

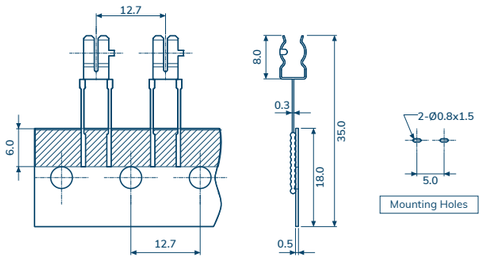
RoHS



CQ-05CT

Tape / Reel
For 5mm Dia. Fuse

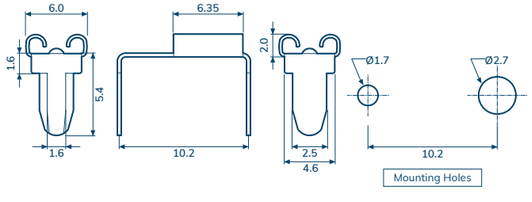
RoHS



CQ-114

For ATQ Blade
Horizontal Clip

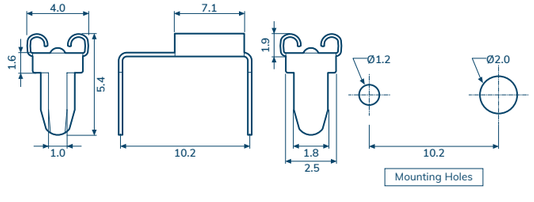
RoHS



CQ-115

For AST
Mini BladeType Fuse

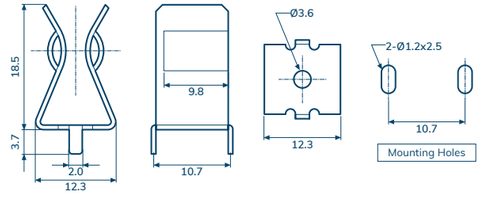
RoHS



CQ-216

For 10.3mm Dia. Fuses

RoHS



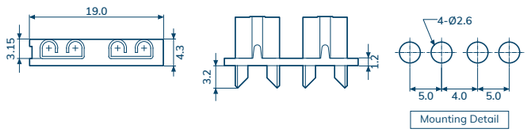
Item Number	CQ-111	CQ-112	CQ-114	CQ-115
Metal Material	Brass	Brass	Brass	Brass
Material Thickness	0.35 mm	0.3 mm	0.3 mm	0.3 mm
Suitable Rated Current	15 A	20 A	15 A	15 A
Fuse Type	ATQ Type	AST Type	ATQ Type	AST Type
Plating Type	Bright Tin Plated	Bright Tin Plated	Bright Tin Plated	Bright Tin Plated

Item Number	CQ-05CT	CQ-216
Metal Material	Phosphor Bronze	Brass
Material Thickness	0.3 mm	0.7 mm
Suitable Rated Current	10 A	30 A
Fuse Type	Ear Type	Ear Type
Plating Type	Bright Tin Plated	Bright Tin Plated

Conquer fuse block are available for 1/4" x 1-1/4" and 5x20mm fuses. The special phenolic resin base offers extremely high insulative values and unless otherwise noted include special dual-purpose connection tabs for either quick-connect, push-on terminal wires or for soldering use. A wide variety of sizes, shapes and mounting configurations fulfill all fuse application. Additionally, conquer designers are available to produce a fuse block to meet your specific applications.

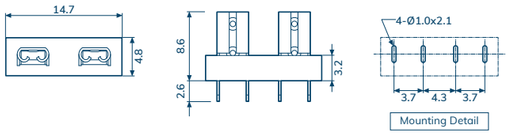
CQ-121 RoHS

For ATQ Blade Type Fuse



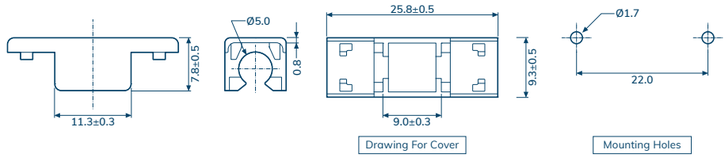
CQ-122 RoHS

For AST Mini Blade Type Fuse



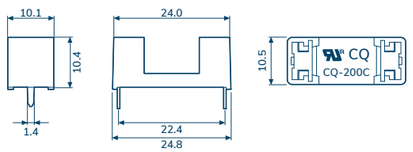
CQ-200CT

For 5x20mm Fuse



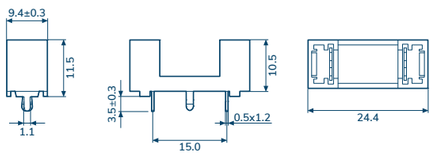
CQ-200C Pb RoHS

For 5x20mm Fuse



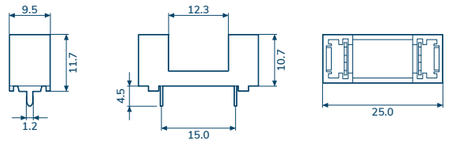
CQ-2001(S) RoHS

For 5x20mm Fuse



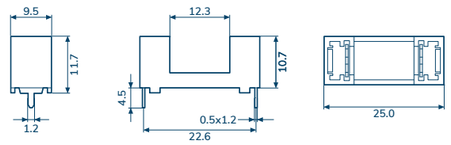
CQ-2002 RoHS

For 5x20mm Fuse



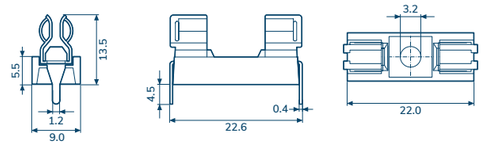
CQ-2004 RoHS

For 5x20mm Fuse



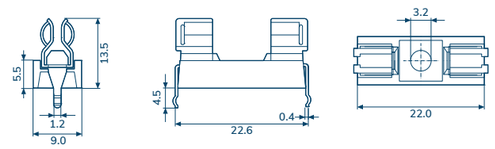
CQ-2005 RoHS

For 5x20mm Fuse



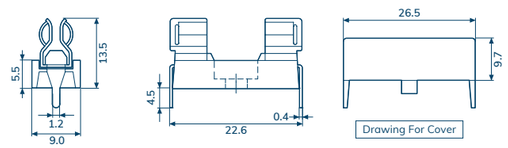
CQ-2007 RoHS

For 5x20mm Fuse



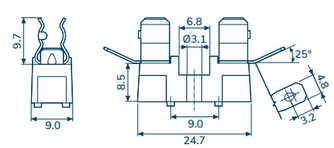
CQ-200PT

For 5x20mm Fuse



CQ-200N

For 5x20mm Fuse



Item Number	CQ-121	CQ-122	CQ-200CT	CQ-200C	CQ-2001(S)
Insertion & Extraction Force	1Kg. Min.	1Kg. Min.	1Kg. Min.	1Kg. Min.	1 Kg. Min.
Dielectric Strength For 60 Sec	AC 2000V Min.	AC 500V Min.	AC 500V Min.	AC 500V Min.	AC 500V Min.
Suitable Rated Current	15A/250V	20A/250V	6.3A/250V	6.3A/250V	6.3A/250V
Insulation Resistance At500VDC	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min
Temperature Rise	50°C Max	50°C Max	50°C Max	50°C Max	50°C Max
Voltage Drop	20mV Max.	20mV Max.	20mV Max.	20mV Max.	20mV Max.

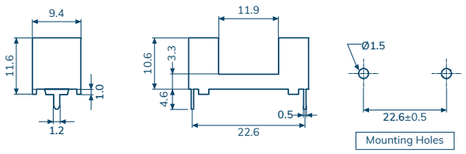
Item Number	CQ-2002	CQ-2004	CQ-2005	CQ-2007	CQ-200PT	CQ-200N
Insertion & Extraction Force	1Kg. Min.	1 Kg. Min.	1Kg. Min.	1Kg. Min.	1 Kg. Min.	1.5 Kg. Min.
Dielectric Strength For 60 Sec	AC 500V Min.	AC 500V Min.	AC 2000V Min.	AC 2000V Min.	AC 2000V Min.	AC 2000V Min.
Suitable Rated Current	6.3A/250V	6.3A/250V	6.3A/250V	6.3A/250V	6.3A/250V	15A/250V
Insulation Resistance At500VDC	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	500MΩ Min
Temperature Rise	50°C Max	50°C Max	60°C Max	60°C Max	60°C Max	60°C Max
Voltage Drop	20mV Max.	20mV Max.	15mV Max.	15mV Max.	15mV Max.	15mV Max.

Conquer fuse block are available for 1/4" x 1-1/4" and 5x20mm fuses. The special phenolic resin base offers extremely high insulative values and unless otherwise noted include special dual-purpose connection tabs for either quick-connect, push-on terminal wires or for soldering use. A wide variety of sizes, shapes and mounting configurations fulfill all fuse application. Additionally, conquer designers are available to produce a fuse block to meet your specific applications.

CQ-201C

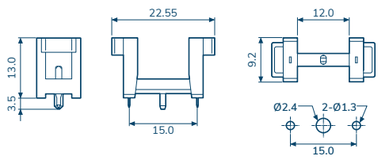
RoHS

For 5x20mm Fuse



CQ-200I

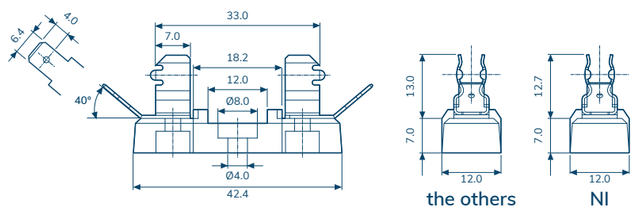
For 5x20mm Fuse

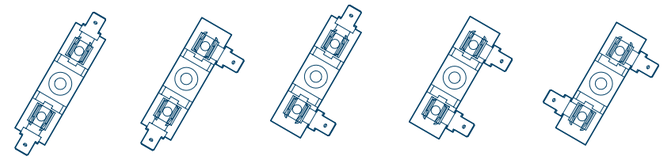


CQ-201N

RoHS

For 6.3x32mm Fuse





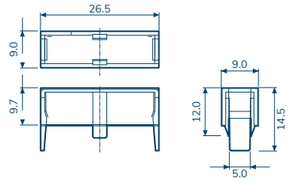
CQ-201NI CQ-201NF CQ-201NL CQ-201NR CQ-201NS

Item Number	CQ-201C	CQ-200I	CQ-201N
Insertion & Extraction Force	1 Kg. Min.	1 Kg. Min.	1.5 Kg. Min.
Dielectric Strength For 60 Sec	AC 3000V Min.	AC 2000V Min.	AC 3000V Min.
Suitable Rated Current	6.3A/250V	6.3A/250V	30A/250V
Insulation Resistance At500VDC	100MΩ Min	100MΩ Min	500MΩ Min
Temperature Rise	-	50°C Max	60°C Max
Voltage Drop	-	20mV Max.	20mV Max.

CV-2

RoHS

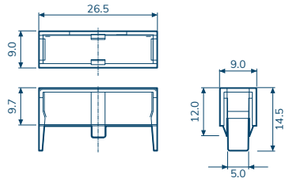
For CQ-2005~CQ-2007
Fuse block, Material PS



CV-2A(S)

RoHS

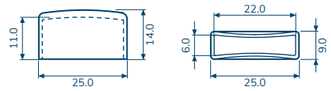
For CQ-2005, CQ-2007
Fuse block, Material PC UL 94V2



CV-4

RoHS

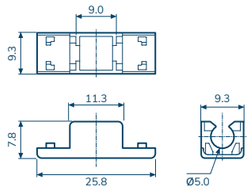
For 5x20 Fuse Block



CV-6

RoHS

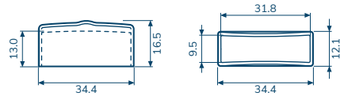
For CQ-2001~CQ-2004 Fuse Block



CV-7

RoHS

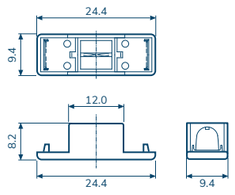
For 6x32 Fuse Block



CV-8

RoHS

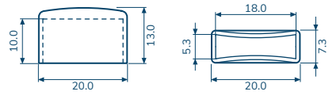
For CQ-2001~CQ-2004 Fuse Block



CV-9

RoHS

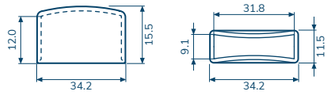
For 4.6x15 Fuse Block



CV-10

RoHS

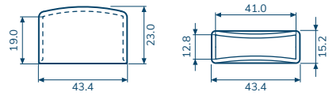
For 6x30 Fuse Block



CV-20

RoHS

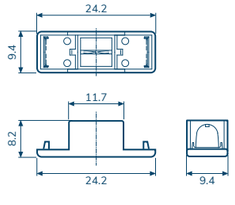
For 10.3x38.1 Fuse Clip



CV-21

RoHS

For CQ-2001~CQ-2004 Fuse Block

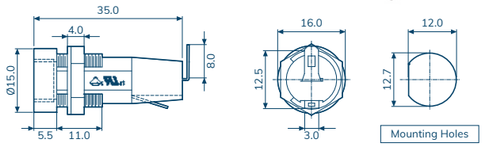


Conquer fuse holders feature for easy removal, clearly printed/imprinted “fuse” designation for easy panel identification and keyed mounting hole requirement for anti-rotation safety. All fuse holders include mounting washer and solder lugs for wiring.

- Insulating body : flame retarding UL 94 V0 thermoplastic material.
- Contact : Nickel or Tin plated copper alloy.

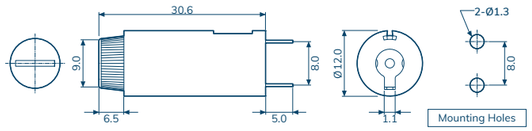
CQ-206S RoHS

For 5x20mm Fuse



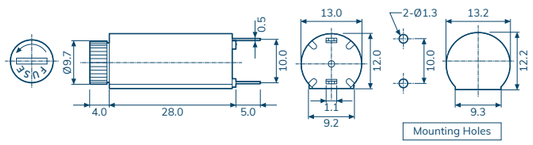
CQ-206C RoHS

For 5x20mm Fuse



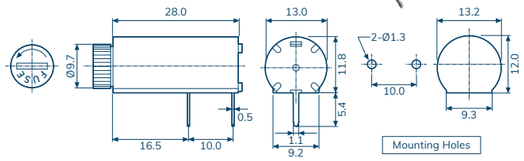
CQ-206CV RoHS

For 5x20mm Fuse



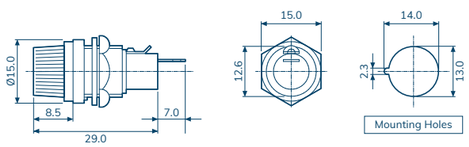
CQ-206CH RoHS

For 5x20mm Fuse



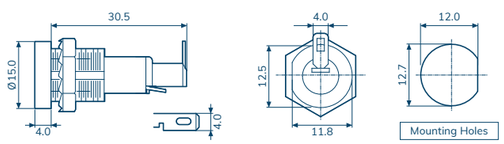
CQ-206HU RoHS

For 5x20mm Fuse



CQ-206D RoHS

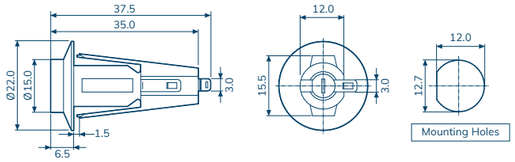
For 5x20mm Fuse



Item Number	CQ-206S	CQ-206C	CQ-206CV	CQ-206CH	CQ-206HU	CQ-206D
Rated Current	10A / 250V	10A / 250V	10A / 250V	10A / 250V	10A / 250V	10A / 250V
Insulation Resistance At 500 VDC	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min
Contact Resistance	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC
Dielectric Strength For 60 Sec	AC1500V Min.	AC1000V Min.	AC1500V Min.	AC1500V Min.	AC2000V Min.	AC1500V Min.
Screw Driver Knob Approval	c UL us, VDE	c UL us	c UL us, VDE	c UL us, VDE	c UL us	c UL us

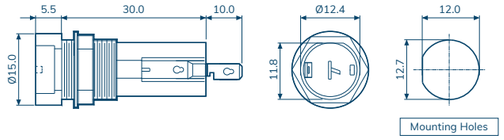
CQ-206F RoHS

For 5x20mm Fuse



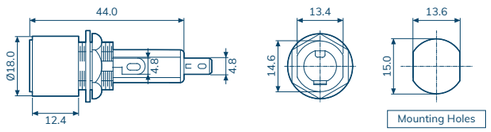
CQ-206M RoHS

For 5x20mm Fuse



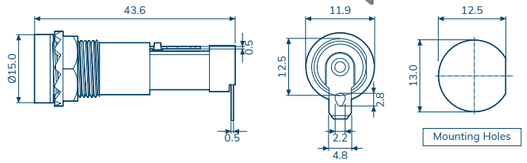
CQ-207A RoHS

For 6.3x32mm Fuses



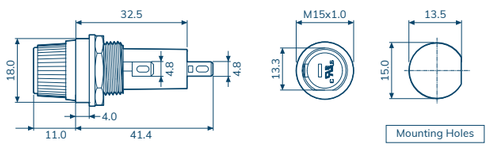
CQ-207D RoHS

For 6.3x32mm Fuses



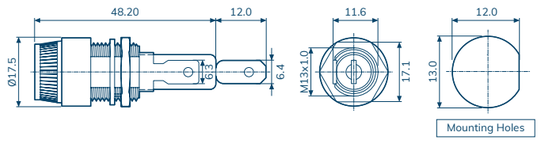
CQ-207HU RoHS

For 6.3x32mm Fuses



CQ-207TU RoHS

For 6.3x32mm Fuses



Item Number	CQ-206F	CQ-206M	CQ-207A	CQ-207D	CQ-207HU	CQ-207TU
Rated Current	10A / 250V	10A / 250V	10A / 250V	15A / 250V	10A / 250V	10A / 250V
Insulation Resistance At 500 VDC	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min
Contact Resistance	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC
Dielectric Strength For 60 Sec	AC1500V Min.	AC1500V Min.	AC1500V Min.	AC1500V Min.	AC1500V Min.	AC1500V Min.
Screw Driver Knob Approval	c UL us, VDE	c UL us, VDE	c UL us	c UL us	c UL us	c UL us

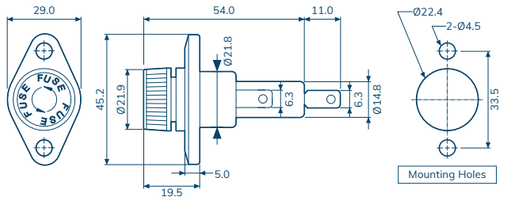
Conquer fuse holders feature for easy removal, clearly printed/imprinted “fuse” designation for easy panel identification and keyed mounting hole requirement for anti-rotation safety. All fuse holders include mounting washer and solder lugs for wiring.

- Insulating body : flame retarding UL 94 V0 thermoplastic material.
- Contact : Nickel or Tin plated copper alloy.

CQ-215 RoHS

For 10.3x38.1mm (5AG) Fuses

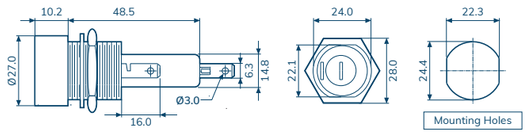
Special Fuse Holder



CQ-225 RoHS

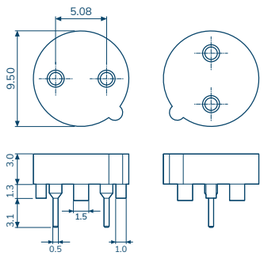
For 10.3x38.1mm (5AG) Fuses

Special Fuse Holder



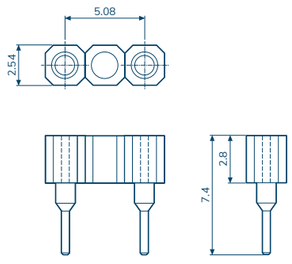
MICROFUSE HOLDER(P)

For MET Fuse



MICROFUSE HOLDER(C)

For MST Fuse



Item Number	CQ-215	CQ-225	MICROFUSE HOLDER(P)	MICROFUSE HOLDER(C)
Rated Current	30A / 600V	30A / 600V	-	-
Housing	-	-	PBT UL94-V0	Polyphenylene sulfide UL94-V0
Insulation Resistance	100MΩ Min	100MΩ Min	10^3MΩ at V=100V	10^3MΩ at V=100V
Temperature Range	-	-	-55°C to 125°C	-55°C to 125°C
Inner Clip	-	-	Beryllium copper, gold plated	Beryllium copper, gold plated
Plating	-	-	Tin	Tin
Max. Current Rating	-	-	6.3A	6.3A
Contact Resistance	5mΩ At 1A DC	5mΩ At 1A DC	<20mΩ	<20mΩ
Dielectric Strength For 60 sec	AC3000V Min.	AC3000V Min.	-	-
Insertion Force	-	-	<3kgf	<1kgf
Withdrawal Force	-	-	>0.05kgf	>0.05kgf

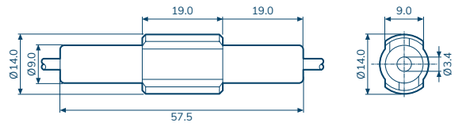
Conquer in-line fuse holders are easy removal and adopted for varies of circuits applications, easy to inspect and change fuses. The waterproof feature for exposed locations and harsh environments.

- Contact : brass, Tin / Nickel plated
- With other wire size or lengths available on special order.
- To install fuses with “loop” type wires, simply cut loop into two separate wires of desired length.

CQ-219D RoHS

For 5x20mm Fuse

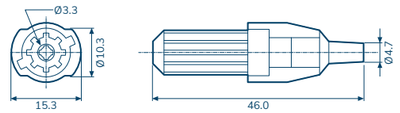
Interlock Type



CQ-219N RoHS

For 5x20mm Fuse

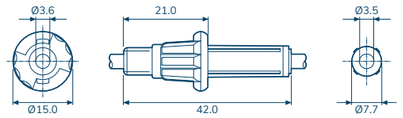
Bayonet Type



CQ-219P RoHS

For 5x20mm Fuse

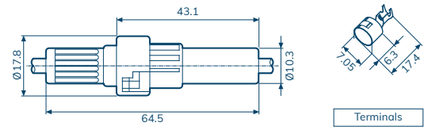
Bayonet Type



CQ-209B RoHS

For 6.3x30/6.3x32mm Fuses

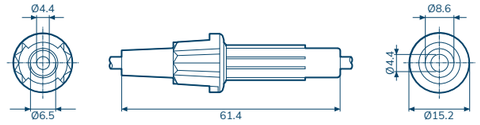
Bayonet Type



CQ-209D RoHS

For 6.3x30/6.3x32mm Fuses

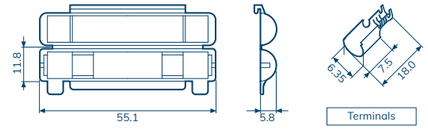
Bayonet Type



CQ-209F1 RoHS

Only For 6.3x30 mm Fuses

Hinged Body Type



Item Number	CQ-219D	CQ-219N	CQ-219P	CQ-209B	CQ-209D	CQ-209F1
Rated Current	6.3A	10A	10A	20A	15A	10A
Insulation Resistance At 500VDC	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min
Contact Resistance	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC
Dielectric Strength For 60 Sec	AC2000V Min.	AC1500V Min.	AC1500V Min.	AC1500V Min.	AC1500V Min.	AC1500V Min.
Body Material	Thermoplastic	Nylon	Nylon	A.B.S.	Nylon	P.P.
Supply Standard UL Wire-AWG/Length	20#AWG / 8”Loop	18#AWG / 8”Loop	18#AWG / 8”Loop	14#AWG / 8”Loop	16#AWG / 8”Loop	18#AWG / 8”Loop

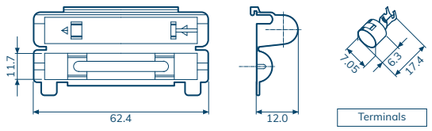
Conquer in-line fuse holders are easy removal and adopted for varies of circuits applications, easy to inspect and change fuses. The waterproof feature for exposed locations and harsh environments.

- Contact : brass, Tin / Nickel plated
- With other wire size or lengths available on special order.
- To install fuses with “loop” type wires, simply cut loop into two separate wires of desired length.

CQ-209F3 RoHS

For 6.3x30/6.3x32mm Fuses

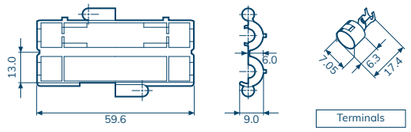
Hinged Body Type



CQ-209F4 RoHS

For 6.3x30/6.3x32mm Fuses

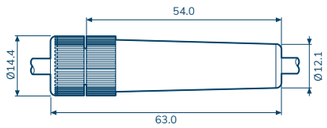
Hinged Body Type



CQ-210

For 6.3x30/6.3x32mm Fuses

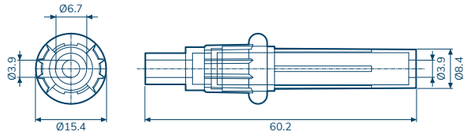
Screw Type



CQ-209P

For 6.3x30/6.3x32mm Fuses

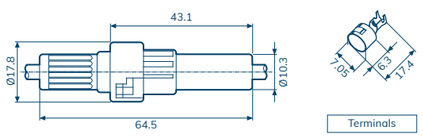
Bayonet Type



CQ-209V

For 6.3x30/6.3x32mm Fuses

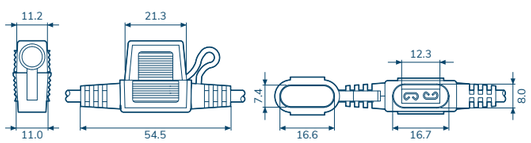
Heavy Duty Bayonet Type



CQ-211SN RoHS

For AST Blade Type Fuses

Hinged Body Type

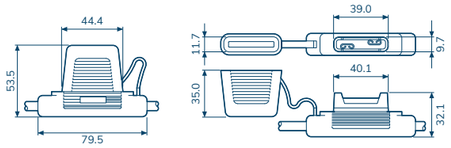


Item Number	CQ-209F3	CQ-209F4	CQ-210	CQ-209P	CQ-209V	CQ-211SN
Rated Current	15A	20A	20A	5A	40A	30A
Insulation Resistance At 500VDC	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min
Contact Resistance	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC
Dielectric Strength For 60 Sec	AC1500V Min.	AC1500V Min.	AC2000V Min.	AC1000V Min.	AC2000V Min.	AC1000V Min.
Body Material	Nylon	Nylon	Bakelite	P.P.	Nylon With Fiber Glass	P.V.C.
Supply Standard UL Wire-AWG/Length	16#AWG / 8”Loop	12#AWG / 8”Loop	12#AWG / 8”Loop	18#AWG / 8”Loop	12#AWG / 8”Loop	12#AWG / 10”Loop

CQ-211MI RoHS

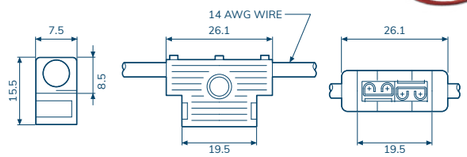
For AMT(MAX) Blade Type Fuse

Hinged Body Type



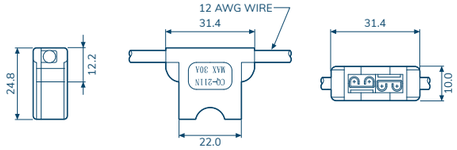
CQ-211A

For ATQ Blade Type Fuse



CQ-211N

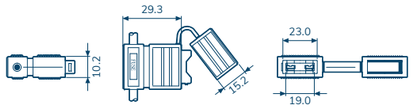
For ATQ Blade Type Fuse



CQ-211C RoHS

For ATQ Blade Type Fuse

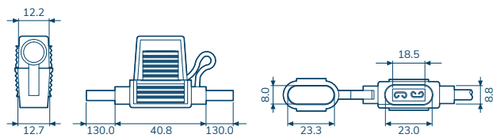
Hinged Body Type



CQ-211CN RoHS

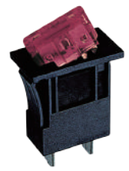
For ATQ Blade Type Fuse

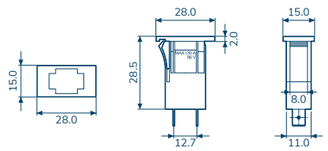
Hinged Body Type



CQ-211P

For ATQ Blade Type Fuse





Item Number	CQ-211MI	CQ-211A	CQ-211N	CQ-211C	CQ-211CN	CQ-211P
Rated Current	80A	20A	30A	30A	30A	20A
Insulation Resistance At 500VDC	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min	100MΩ Min
Contact Resistance	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC	5mΩ At 1A DC
Dielectric Strength For 60 Sec	AC3000V Min.	AC1500V Min.	AC2000V Min.	AC1000V Min.	AC1000V Min.	AC1500V Min.
Body Material	P.V.C.	Nylon	Nylon	P.V.C.	P.V.C.	Nylon, Thermo Plastic
Supply Standard UL Wire-AWG/Length	8#AWG / 5” x 2	14#AWG / 8”Loop	12#AWG / 8”Loop	12#AWG / 12”Loop	12#AWG/ 130mm*2	-