



**SMDJ**

**TVS**

**SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSORS**

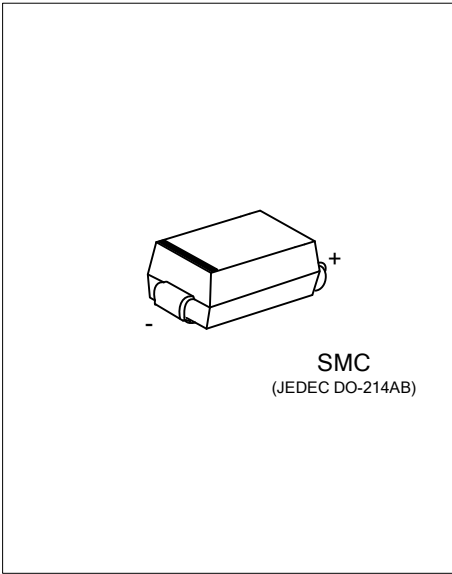
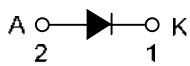
■ **DESCRIPTION**

The UTC **SMDJ** is a surface mount transient voltage suppressors, it uses UTC's advanced technology to provide customers with low leakage and very fast response time, etc.

■ **FEATURES**

- \* Excellent clamping capability
- \* Low leakage
- \* Very fast response time

■ **SYMBOL**



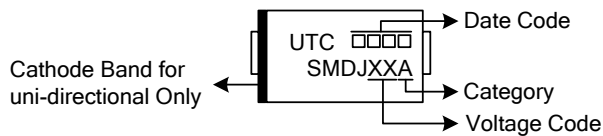
■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
SMDJXXAL-SMC-R	SMDJXXAG-SMC-R	SMC	K	A	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

<p>SMDJXXAL-SMC-R</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Halogen Free</li> <li>(4) Category</li> <li>(5) Output Voltage Code</li> </ul>	<ul style="list-style-type: none"> <li>(1) R: Tape Reel</li> <li>(2) SMC: SMC</li> <li>(3) L: Lead Free, G: Halogen Free</li> <li>(4) A: 5% uni-directional</li> <li>(5) xx: refer to ELECTRICAL CHARACTERISTICS</li> </ul>
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■ **MARKING**



■ ABSOLUTE MAXIMUM RATING ( $T_A=25^\circ\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	RATINGS	UNIT
Peak Power Dissipation with a 10/1000 $\mu\text{s}$ Waveform (Note 2)	$P_{PP}$	3000	W
Peak Pulse Current with a 10/1000 $\mu\text{s}$ Waveform (Note 2)	$I_{PP}$	See ELECTRICAL CHARACTERISTICS Table	A
Power Dissipation On Infinite Heatsink at $T_L = 75^\circ\text{C}$	$P_D$	6.0	W
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Unidirectional Only (Note 3)	$I_{FSM}$	300	A
Maximum Instantaneous Forward Voltage at 50 A for Unidirectional Only (Note 4)	$V_F$	3.5/5.0	V
Operating Junction Temperature	$T_J$	-55 ~ +150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +150	$^\circ\text{C}$

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. Non-repetitive current pulse and derated above  $T_A=25^\circ\text{C}$

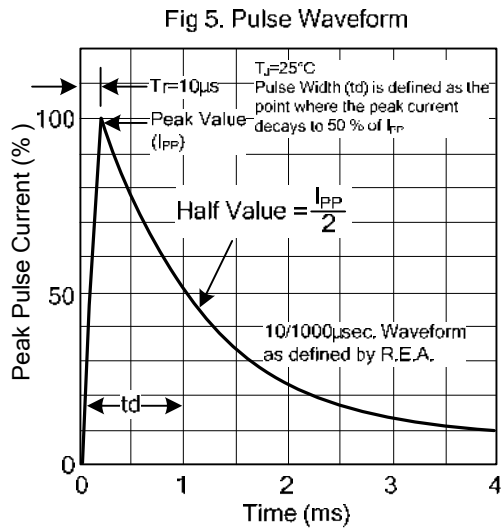
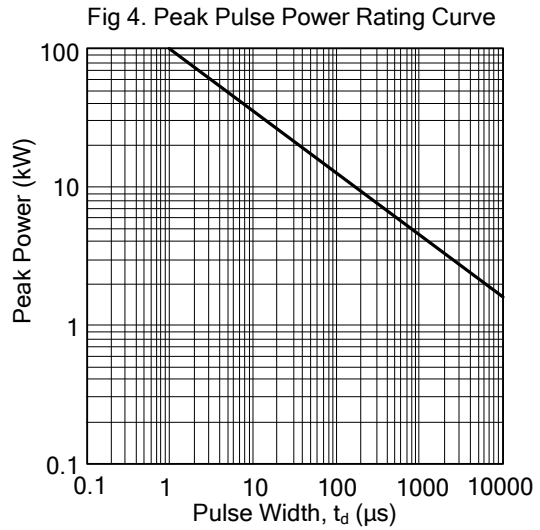
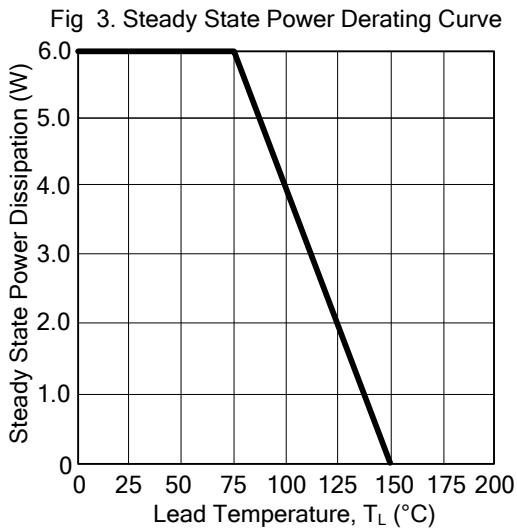
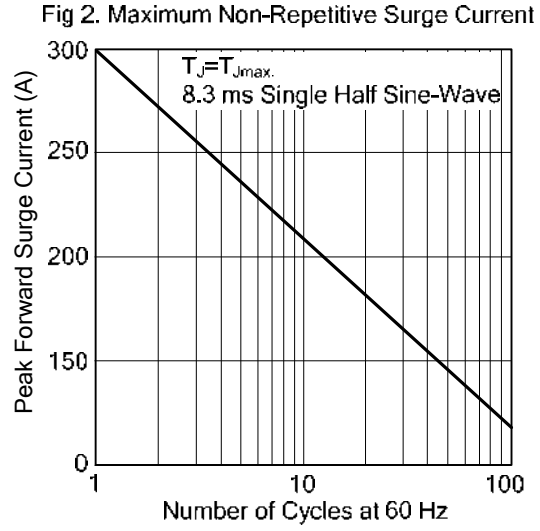
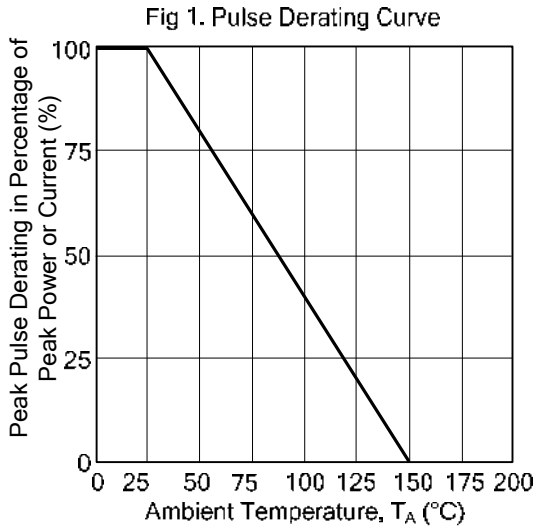
3. Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.

4.  $V_F < 3.5\text{V}$  for devices of  $V_{BR} < 200\text{V}$  and  $V_F < 5.0\text{V}$  for devices of  $V_{BR} > 201\text{V}$ .

■ ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ , unless otherwise noted)

PART NUMBER (Uni)	BREAKDOWN VOLTAGE $V_{BR} @ I_T$			MAXIMUM REVERSE LEAKAGE $I_R$  @ $V_{RWM}$ ( $\mu\text{A}$ )	WORKING PEAK REVERSE VOLTAGE $V_{RWM}$ (V)	MAXIMUM REVERSE SURGE CURRENT $I_{PP}$ (A)	MAXIMUM CLAMPING VOLTAGE $V_C @ I_{PP}$ (V)
	MIN (V)	MAX (V)	$I_T$ (mA)				
SMDJ24A	26.70	29.50	5	2	24.0	77.12	38.9
SMDJ28A	31.10	34.40	5	2	28.0	66.08	45
SMDJ33A	36.70	40.60	5	2	33.0	56.29	53.3

■ TYPICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ , unless otherwise noted)



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