

UTC UNISONIC TECHNOLOGIES CO., LTD

SMCJ

SURFACE MOUNT TRANSIENT **VOLTAGE SUPPRESSORS**

DESCRIPTION

The UTC SMCJ is a surface mount transient voltage supperssors, it uses UTC's advanced technology to provide customers leakage and very fast response time, etc.

FEATURES

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

SYMBOL



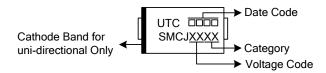
ORDERING INFORMATION

| s with low | | | | | |
|------------|-------------------------|--|--|--|--|
| | SMC (JEDEC DO-214AB) | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Ordering Number | | | Deekage | Pin Assignment | | Deaking | |
|---|----------------|-----------------|---------|----------------|---|-----------|--|
| | Lead Free | Halogen Free | Package | 1 | 2 | Packing | |
| 5 | SMCJXXAL-SMC-R | SMCJXXAG-SMC-R | SMC | K | А | Tape Reel | |
| S | MCJXXCAL-SMC-R | SMCJXXCAG-SMC-R | SMC | K | К | Tape Reel | |
| Note: Pin Assignment: K: Cathode A: Anode | | | | | | | |

| SMCJXXXL-SMC-R | |
|------------------|--|
| (1)Packing Type | (1) R: Tape Reel |
| (2)Package Typ | e (2) SMC: SMC |
| (3)Green Packa | ge (3) L: Lead Free, G: Halogen Free and Lead Free |
| (4)Category | (4) A: 5% uni-directional, CA: 5% Bi-directional |
| (5)Output Voltag | ge Code (5) xxx: refer to ELECTRICAL CHARACTERISTICS |

MARKING



■ **ABSOLUTE MAXIMUM RATING** (T_A=25°C unless otherwise noted)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|--|------------------|---|------|
| Peak Power Dissipation with a 10/1000µs Waveform (Note 2) | P _{PP} | 1500 | W |
| Peak Pulse Current with a 10/1000µs Waveform (Note 2) | I _{PP} | See ELECTRICAL CHARACTERISTICS Table | A |
| Power Dissipation On Infinite Heatsink at T _L = 75°C | PD | 6.5 | W |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Unidirectional Only (Note 3) | I _{FSM} | 200 | А |
| Maximum Instantaneous Forward Voltage at 50 A for Unidirectional Only (Note 4) | V_{F} | 3.5/5.0 | V |
| Operating Junction Temperature | TJ | -55 ~ +150 | °C |
| Storage Temperature | T _{STG} | -55 ~ +150 | °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 $T_A=25^{\circ}C$

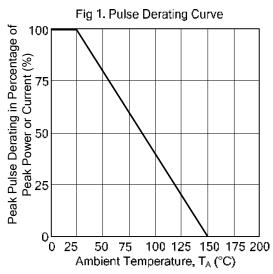
3. Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.

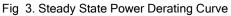
| 4)/ c) E)/familardiana | £\/ (000)/ === \/ | $(\Gamma \cap V) $ (for device $f \in V $) $> O $ | 0417 |
|---------------------------------------|---|--|------|
| 4. V _F <3.5V for devices c | of v _{BR} <200V and v _F < | <5.0V for devices of V _{BR} >20 | JIV. |

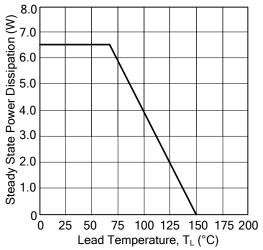
| PART NUMBER (Uni) | PART NUMBER (Bi) | BREAKDOWN VOLTAGE V _{BR} @ I _T | | MAXIMUM REVERSE | WORKING PEAK | MAXIMUM REVERSE | MAXIMUM CLAMPING | |
|----------------------|---------------------|---|------------|--------------------|--|--|---|--|
| | | MIN (V) | MAX (V) | l⊤ (mA) | LEAKAGE I _R @ V _{RWM} (µA) | REVERSE VOLTAGE V _{RWM} (V) | SURGE CURRENT I _{PP} (A) | VOLTAGE V _C @ I _{PP} (V) |
| SMCJ18A | SMCJ18CA | 20.00 | 22.10 | 1 | 1 | 18 | 51.37 | 29.2 |
| SMCJ24A | SMCJ24CA | 26.70 | 29.50 | 1 | 1 | 24 | 38.56 | 38.9 |
| SMCJ26A | SMCJ26CA | 28.90 | 31.90 | 1 | 1 | 26 | 35.63 | 42.1 |
| SMCJ28A | SMCJ28CA | 31.10 | 34.40 | 1 | 1 | 28 | 33.04 | 45.4 |
| SMCJ30A | SMCJ30CA | 33.30 | 36.80 | 1 | 1 | 30 | 30.99 | 48.4 |
| SMCJ33A | SMCJ33CA | 36.70 | 40.60 | 1 | 1 | 33 | 28.14 | 53.3 |
| SMCJ36A | SMCJ36CA | 40.00 | 44.20 | 1 | 1 | 36 | 25.82 | 58.1 |
| SMCJ58A | SMCJ58CA | 64.40 | 71.20 | 1 | 1 | 58 | 16.03 | 93.6 |

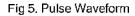


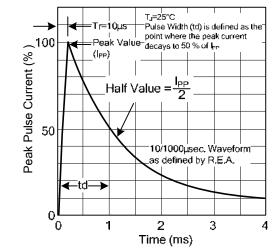




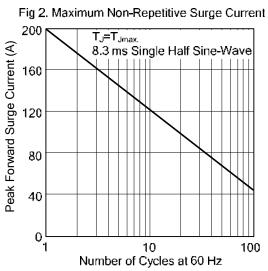




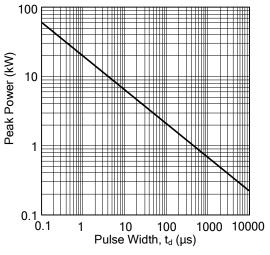












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