



SMCJXXX

TVS

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSORS

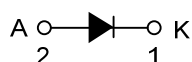
DESCRIPTION

The UTC **SMCJXXX** 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



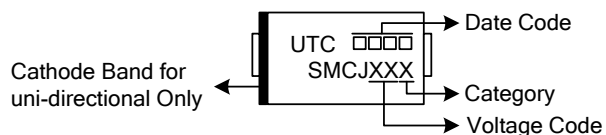
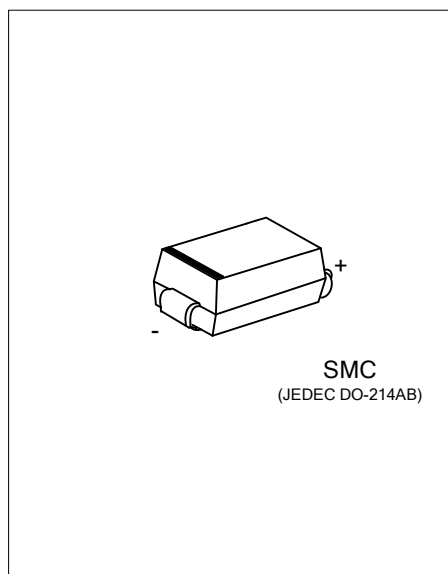
ORDERING INFORMATION

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

Note: Pin Assignment: K: Cathode A: Anode

<p>SMCJXXXL-SMC-R</p> <ul style="list-style-type: none">(1) Packing Type(2) Package Type(3) Halogen Free(4) Category(5) Output Voltage Code	<ul style="list-style-type: none">(1) R: Tape Reel(2) SMC: SMC(3) L: Lead Free, G: Halogen Free(4) A: 5% uni-directional(5) xx: refer to ELECTRICAL CHARACTERISTICS
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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 μs Waveform (Note 2)	P_{PP}	1500	W
Peak Pulse Current with a 10/1000 μs Waveform (Note 2)	I_{PP}	See ELECTRICAL CHARACTERISTICS Table	A
Power Dissipation On Infinite Heatsink at $T_L = 75^{\circ}\text{C}$	P_D	6.5	W
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Unidirectional Only (Note 3)	I_{FSM}	200	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	$-55\sim+150$	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	$-55\sim+150$	$^{\circ}\text{C}$

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} (μA)	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)				
SMCJ24A	26.70	29.50	1	1	24	38.56	38.9
SMCJ33A	36.70	40.60	1	1	33	28.14	53.3
SMCJ58A	64.40	71.20	1	1	58	16.03	93.6

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

Fig 1. Pulse Derating Curve

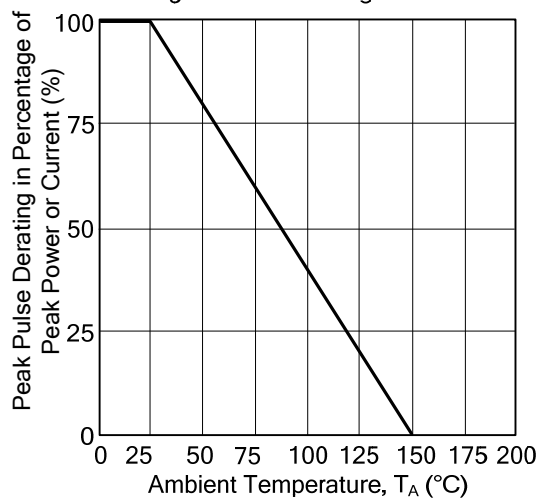


Fig 2. Maximum Non-Repetitive Surge Current

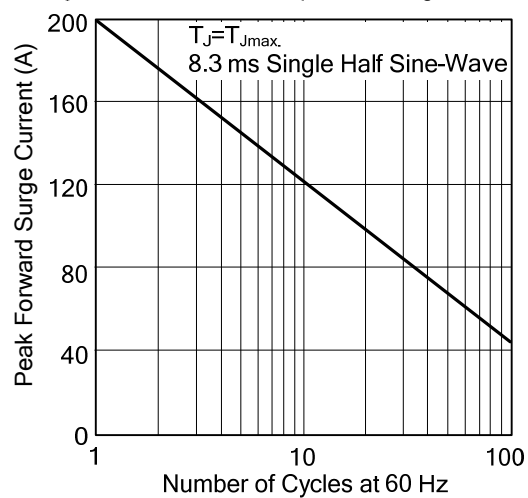


Fig 3. Steady State Power Derating Curve

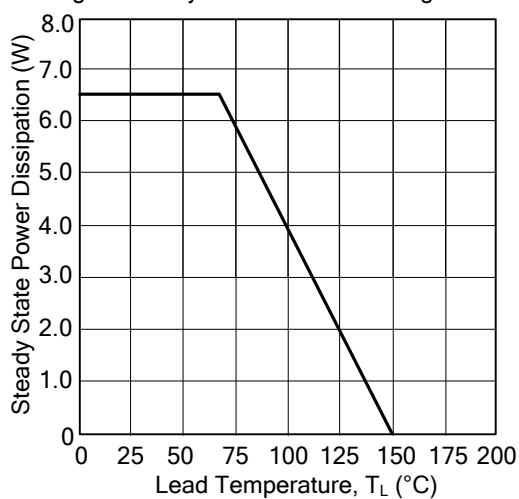


Fig 4. Peak Pulse Power Rating Curve

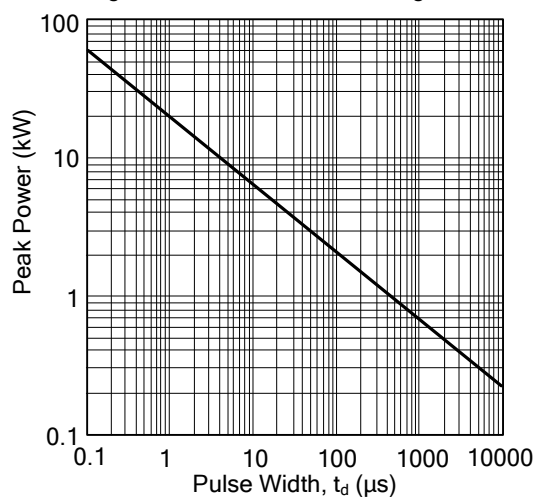
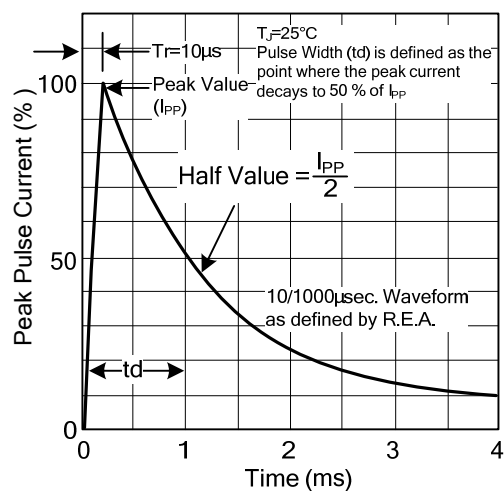


Fig 5. Pulse Waveform



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