



SMCJ

TVS

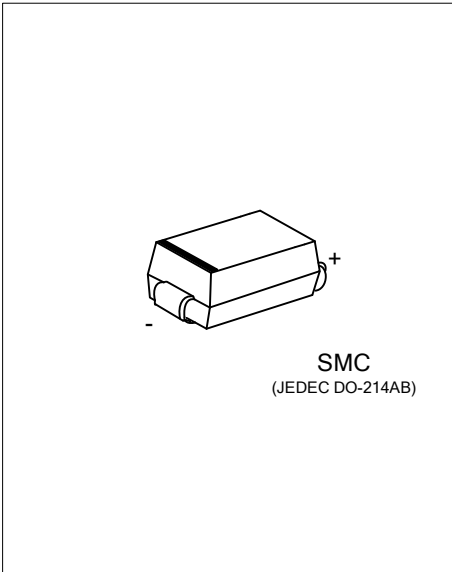
SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSORS

DESCRIPTION

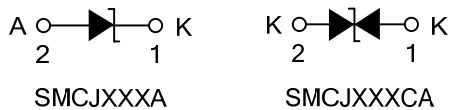
The UTC **SMCJ** is a surface mount transient voltage suppressors, it uses UTC's advanced technology to provide customers with low leakage and very fast response time, etc.

FEATURES

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



SYMBOL



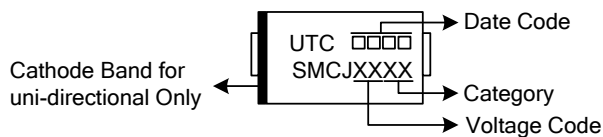
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
SMCJXXAL-SMC-R	SMCJXXAG-SMC-R	SMC	K	A	Tape Reel
SMCJXXCAL-SMC-R	SMCJXXCAG-SMC-R	SMC	K	K	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

SMCJXXXL-SMC-R	(1)Packing Type (2)Package Type (3)Green Package (4)Category (5)Output Voltage Code	(1) R: Tape Reel (2) SMC: SMC (3) L: Lead Free, G: Halogen Free and Lead Free (4) A: 5% uni-directional, CA: 5% Bi-directional (5) xxx: 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 ~ +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 $V_{BR} > 201\text{V}$.

PART NUMBER (Uni)	PART NUMBER (Bi)	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)				
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

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

Fig 1. Pulse Derating Curve

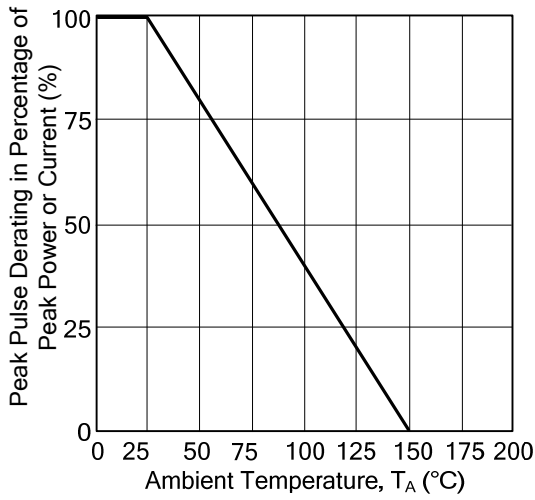


Fig 2. Maximum Non-Repetitive Surge Current

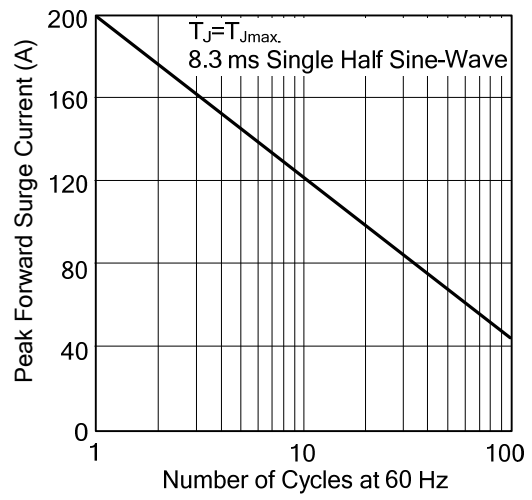


Fig 3. Steady State Power Derating Curve

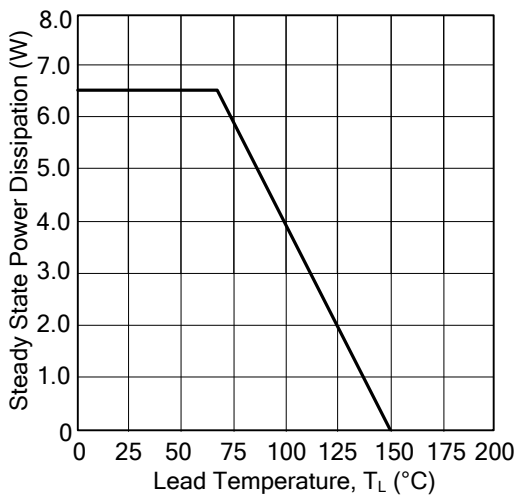


Fig 4. Peak Pulse Power Rating Curve

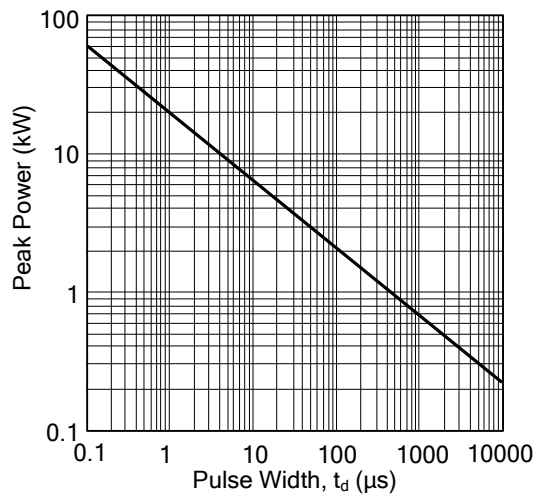
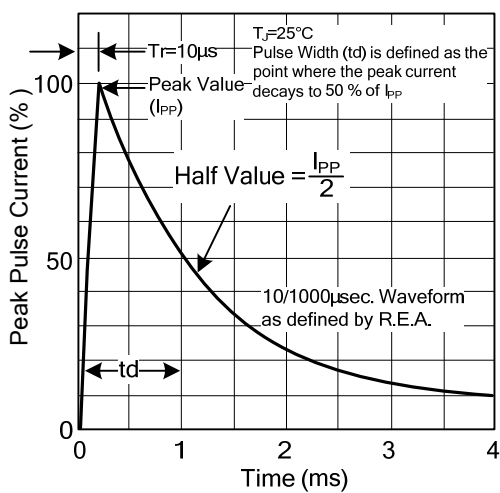


Fig 5. Pulse Waveform



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