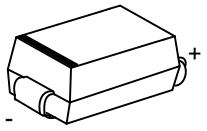
SMDJ

TVS

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSORS



SMC
(JEDEC DO-214AB)

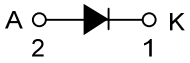
■ DESCRIPTION

The UTC **SMDJ** is a surface mount transient voltage supperssors, 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



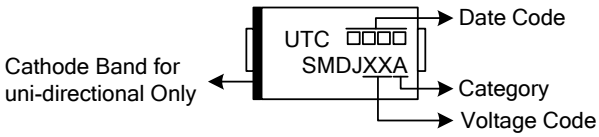
■ ORDERING INFORMATION

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

SMDJXXAL-SMC-R (1)Packing Type (2)Package Type (3)Halogen Free (4)Category (5)Output Voltage Code	(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

■ MARKING



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■ 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}	3000	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	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	°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°C
3. Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.
4. V_F<3.5V for devices of V_{BR}<200V and V_F<5.0V for devices of V_{BR}>201V.

■ ELECTRICAL CHARACTERISTICS (T_A =25°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)				
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°C, unless otherwise noted)

Fig 1. Pulse Derating Curve

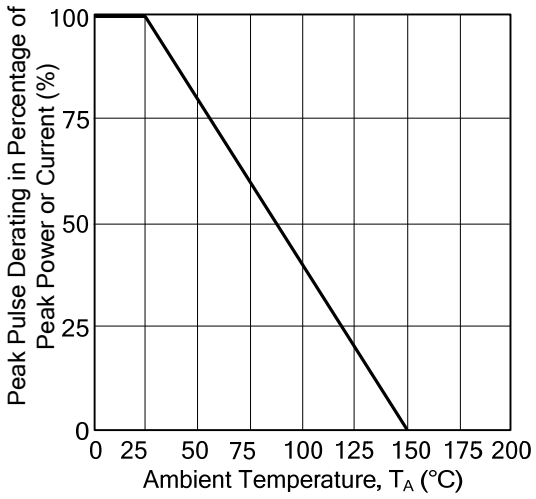


Fig 2. Maximum Non-Repetitive Surge Current

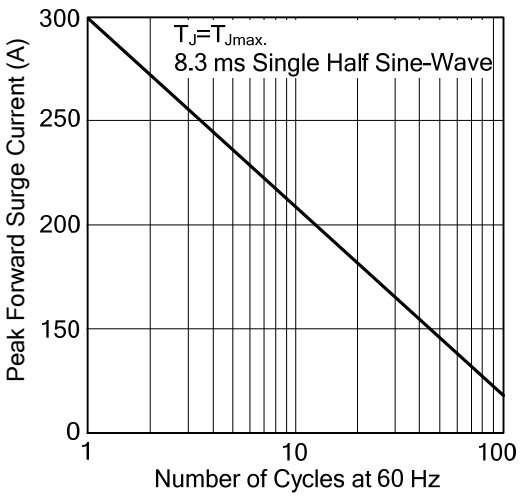


Fig 3. Steady State Power Derating Curve

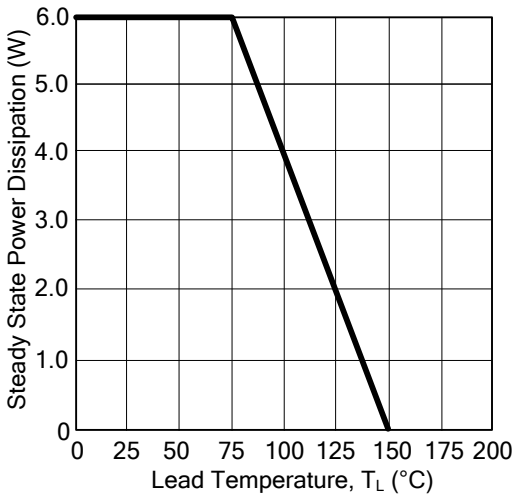


Fig 4. Peak Pulse Power Rating Curve

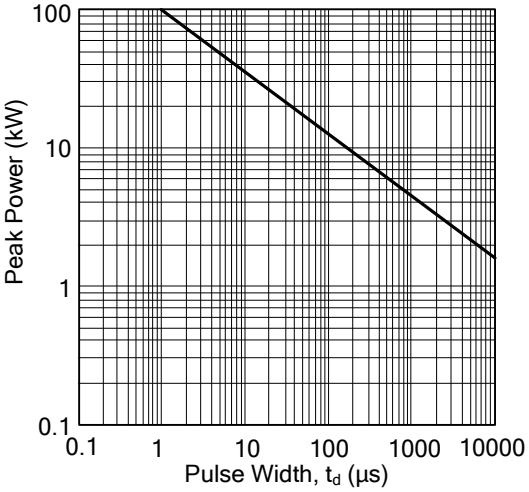
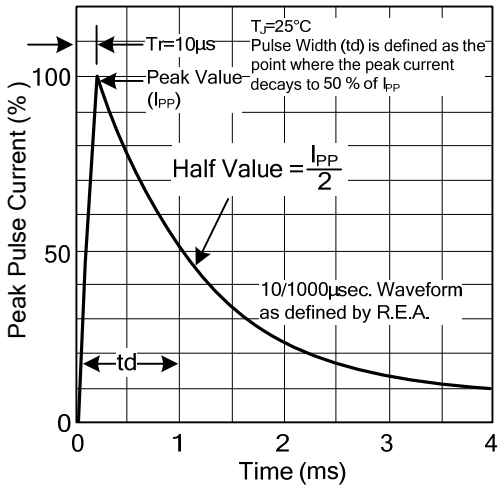


Fig 5. Pulse Waveform



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