

Transient Voltage Suppressors 2000W DO-214AB

2.0SMCJ-E Series

MERITEK

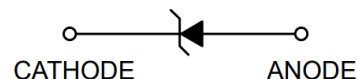
FEATURE

- IEC 61000-4-2 ESD: $\pm 30\text{kV}$ (Air), $\pm 30\text{kV}$ (Contact)
- 2000W Peak Pulse Power (10/1000 μs Waveform)
- 22V to 24V Standoff Voltage
- Fast Response Time
- Excellent Clamping Capability
- UL Flammability Classification Rating 94V-0



MECHANICAL DATA

- Case: DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End



RoHS

MAXIMUM RATINGS

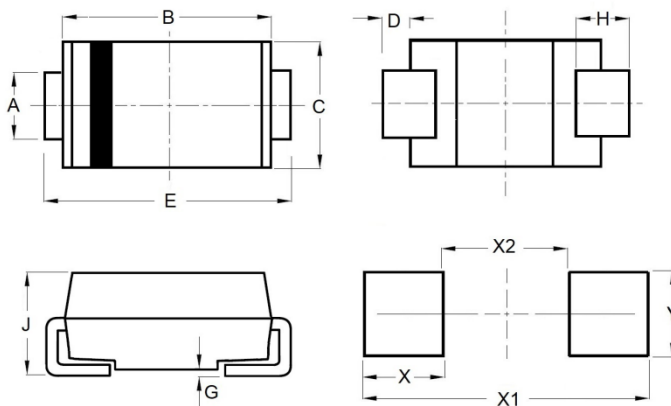
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation On 10/1000 μs Waveform	P_{PPM}	2000	W
Peak Pulse Current On 10/1000 μs Waveform	I_{PPM}	See Table	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	200	A
Typical Thermal Resistance Junction to Air	$R_{\theta JA}$	82	$^{\circ}\text{C/W}$
IEC 61000-4-2 ESD (Air)	V_{ESD}	± 30	kV
IEC 61000-4-2 ESD (Contact)	V_{ESD}	± 30	kV
Operating Junction And Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^{\circ}\text{C}$

Note:

1. $T_A = 25^{\circ}\text{C}$ ambient temperature unless otherwise specified.
2. Non-repetitive current pulse, and derated above $T_A = 25^{\circ}\text{C}$.
3. Mounted on 2mm² land areas
4. Measured 8.3ms single half sine-wave, or equivalent square wave, Duty cycle = 4 pulses per minute maximum.
5. A transient suppressor is selected according to the working peak reverse voltage (V_{RWM}), which should be equal to or greater than the DC or continuous peak operating voltage level.

DIMENSIONS

DO-214AB	Min (mm)	Max (mm)
A	2.75	3.25
B	6.60	7.11
C	5.59	6.22
D	0.152	0.305
E	7.75	8.13
G	0.051	0.203
H	0.76	1.52
J	2.00	2.62
X	3.03	
X1	9.90	
X2	3.84	
Y	3.82	



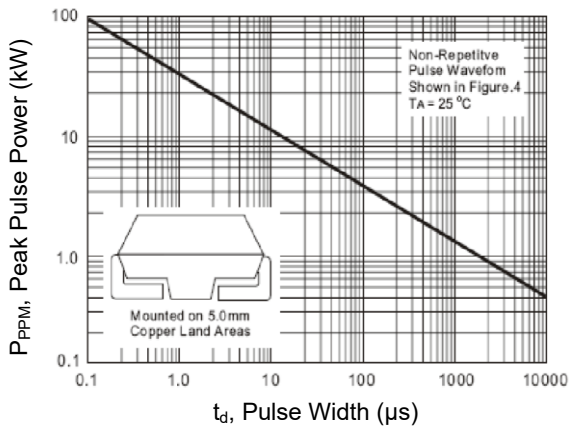
ELECTRICAL CHARACTERISTICS

Part Number	Working Reverse Voltage	Reverse Breakdown Voltage		Test Current	Max Reverse Leakage Current	Max Clamping Voltage	Reverse Surge Current
		$V_{BRMin}(V)$	$V_{BRMax}(V)$				
Uni-Polar	$V_{RWM}(V)$	$V_{BRMin}(V)$	$V_{BRMax}(V)$	$I_T(mA)$	$I_R(\mu A) @ V_{RWM}$	$V_C(V) @ I_{PP}$	$I_{PP}(A) Max$
2.0SMCJ22A-E	22	24.4	28.0	1	1	35.5	56.3
2.0SMCJ24A-E	24	26.7	30.7	1	1	38.9	51.4

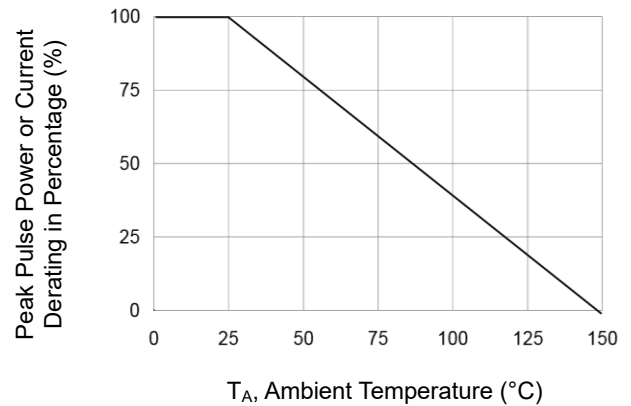
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CHARACTERISTIC CURVES

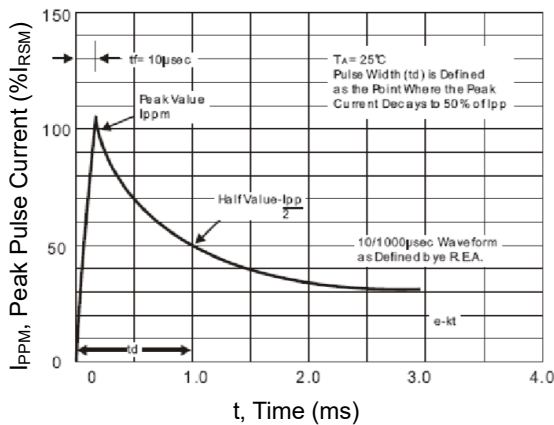
Peak Pulse Power Rating Curve



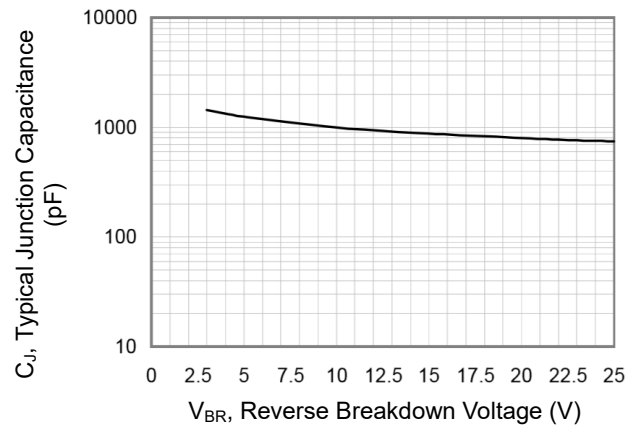
Pulse Derating Curve



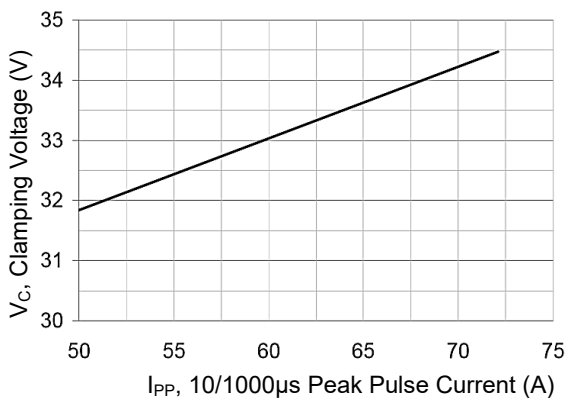
Pulse Waveform



Typical Junction Capacitance



Typical Peak Clamping Voltage



*Specifications subject to change without notice.