SMCJ33A

Surface Mount Transient Voltage Suppressors

Pppm：1500W IFSM：200A

GULF SEMI

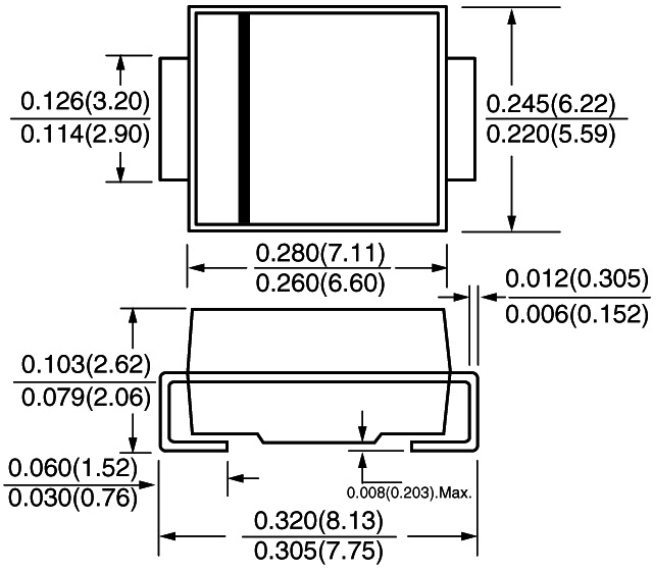
FEATURE

Low profile package
Ideal for automated placement
Excellent clamping capability
Very fast response time
Low incremental surge resistance
Glass passivated chip junction
High temperature soldering guaranteed
260℃/10sec/at terminals

MECHANICAL DATA

Terminal：Plated axial leads solderable per MIL-STD 202E, method 208C
Case：Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity：color band denotes cathode end
Mounting position：any

SMC/DO-214AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS
(TA = 25 °C unless otherwise noted)

Parameter	Symbol	SMCJ33A	units
Peak pulse power dissipation with a 10/1000 μs waveform (1,2)	Pppm	1500	W
Peak pulse current with a 10/1000 μs waveform (1)	Ippm	28.1	A
Breakdown Voltage at I_T=1mA	Vbr	36.7min 40.6max	V
Maximum Reverse Leakage at V_{WM}=33V	IR	1.0	μA
Maximum Clamping Voltage at Ippm	Vc	53.3	V
Peak forward surge current 8.3 ms single half sine-wave uni-directional only(2)	IFSM	200	A
Maximum instantaneous forward voltage at 100A for uni-directional only	VF	3.5	V
Typical thermal resistance, junction-to-leads	Rth(jl)	15	°C/W
Typical thermal resistance, junction-to—ambient (3)	Rth(ja)	75	°C/W
Operating junction and Storage temperature range	Tj,Tstg	-55 to +150	℃

Note:
(1) Non-repetitive current pulse, per Fig. 3 and derated above TA = 25 °C per Fig. 2
(2) Mounted on 0.31×0.31″ (8.0×8.0mm) copper pads to each terminal
(3) Mounted on minimum recommended pad layout

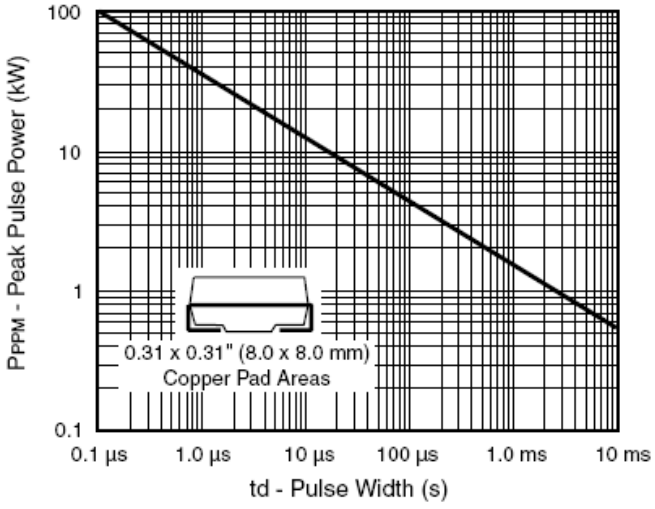


Figure 1. Peak Pulse Power Rating Curve

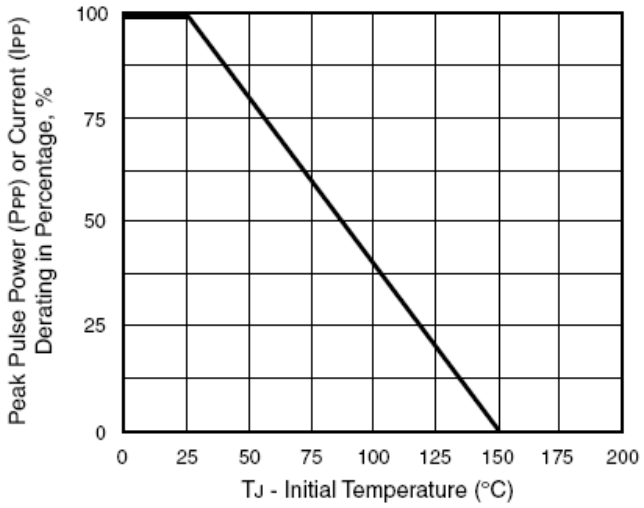


Figure 2. Pulse Power or Current versus Initial Junction Temperature

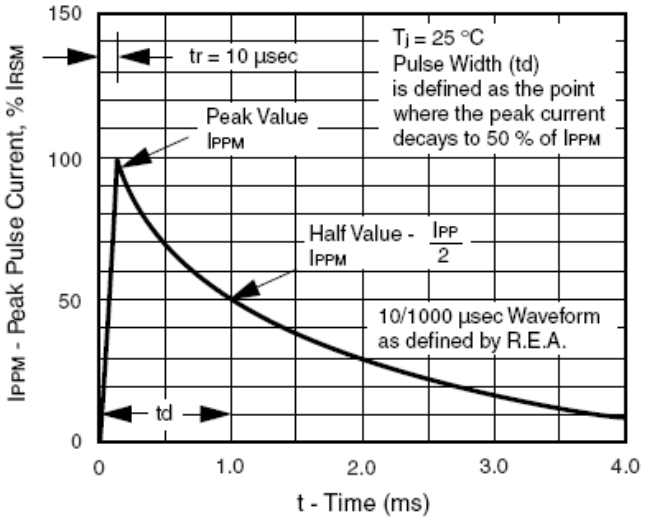


Figure 3. Pulse Waveform

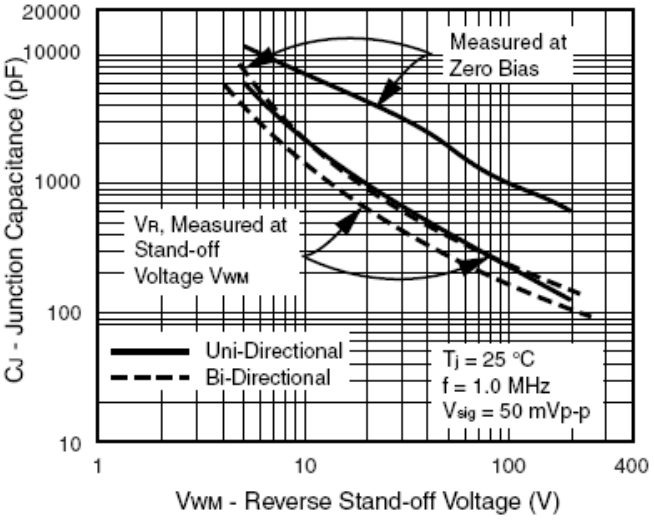


Figure 4. Typical Junction Capacitance Uni-Directional

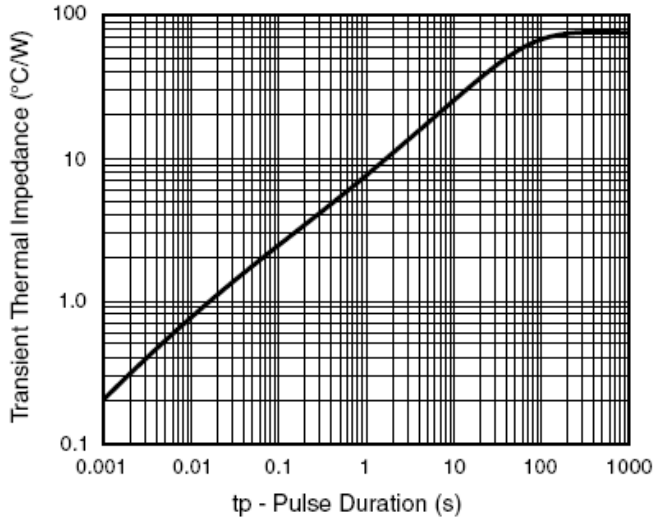


Figure 5. Typical Transient Thermal Impedance

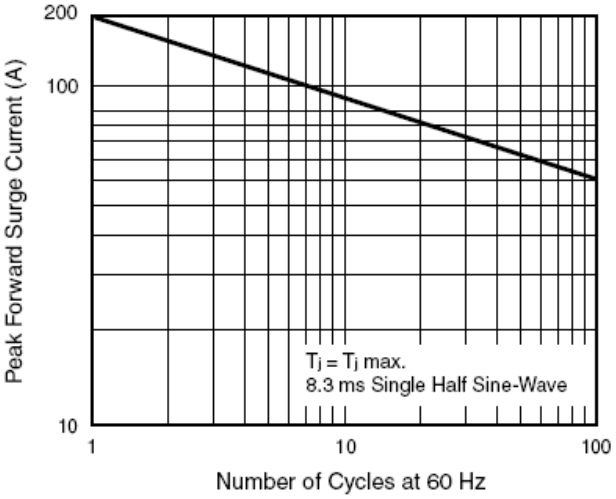


Figure 6. Maximum Non-Repetitive Forward Surge Current
Uni-Directional Use Only