	E480232

1500 Watt TVS
220 to 350 Volts

Features

- For Surface Mount Application in Order to Optimize Board Space
- Built-in Strain Relief
- Glass Passivated Junction
- Plastic Package Has Underwrites Laboratory Flammability
- Temperature Coefficient, Typical Value is 0.1%
- Fast Response Time: Typical Less than 1ps from 0V to BV Min
- High Temperature Soldering: 260°C/10 Seconds at Terminals
- Halogen Free. “Green” Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates Compliant. See Ordering Information)

Mechanical Data

- Polarity: Color Band Denotes Positive End(Cathode) Except Bi-directional Types(Note4)
- Weight: 0.007 ounce, 0.21 gram
- IEC-61000-4-2 ESD 15kV(Air), 8kV(Contact)
- Standard Packaging: 16mm Tape Per (EIA 481)
- Terminals: Solderable Per MIL-STD-750, Method 2026

Maximum Ratings

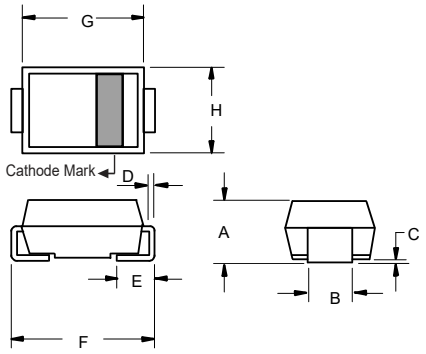
- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C
- Typical Thermal Resistance: 15°C/W Junction to Lead
- Typical Thermal Resistance: 75°C/W Junction to Ambient

Electrical Characteristics @ 25°C Unless Otherwise Specified

Peak Pulse Power Surge Current on 10/1000μs Waveform	I_{PPM}	See the Table	Note 3
Peak Pulse Power Dissipation on 10/1000μs Waveform	P_{PPM}	1500W	Note 3,4,Fig1
Power Dissipationon infinite heat sink	P_D	6.5W	T_L = 75°C.
Peak forward surge current, 8.3 ms single half sine-wave unidirectional only	I_{FSM}	200A	
Maximum instantaneous forward voltage at 100A for unidirectional only	V_F	5V (MAX) 4V (TYP)	

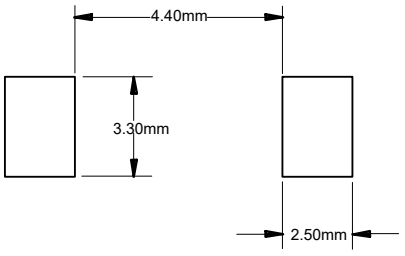
Note:
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
3. Non-repetitive current pulse, per Fig.3 and derated above T_A=25 °C per Fig.4.
4. Mounted on 8.0mm^{2}copper pads to each terminal.

SMC (DO-214AB)
(LEAD FRAME)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.108	0.128	2.75	3.25	
C	0.002	0.008	0.051	0.203	
D	0.006	0.012	0.152	0.305	
E	0.030	0.060	0.76	1.52	
F	0.305	0.320	7.75	8.13	
G	0.260	0.280	6.60	7.11	
H	0.220	0.245	5.59	6.22	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number		Reverse Stand-Off Voltage	Breakdown Voltage V_{BR}(V)		Test Current	Max. Clamping Voltage @I_{PP}	Peak Pulse Current	Reverse Leakage Current@V_{WM}	Marking Code	
SMCJ220AL	SMCJ220CAL	220	246.0	272.0	1	356	4.2	1	GHXL	BHXL
SMCJ250AL	SMCJ250CAL	250	279.0	309.0	1	405	3.7	1	GHZL	BHZL
SMCJ300AL		300	335.0	371.0	1	486	3.1	1	GJEL	
SMCJ350AL		350	391.0	432.0	1	567	2.6	1	GJGL	

Note:5.Unidirectional and bidirectional available,for bidirectional devices add “C”suffix, eg. SMCJ220CAL.

Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

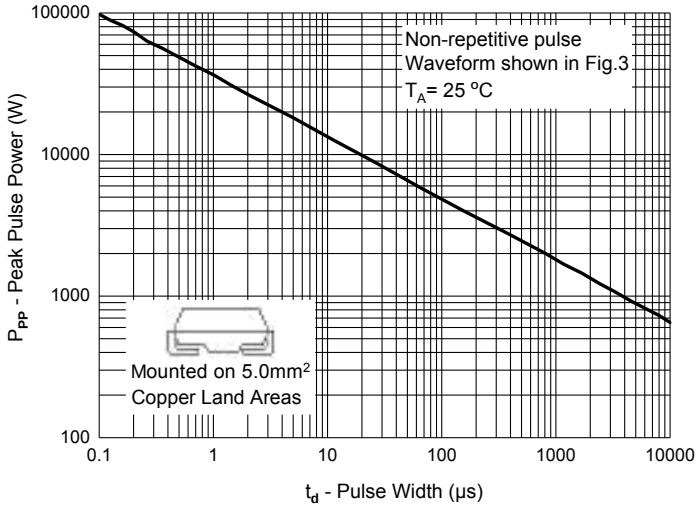


Fig. 2 - Typical Junction Capacitance

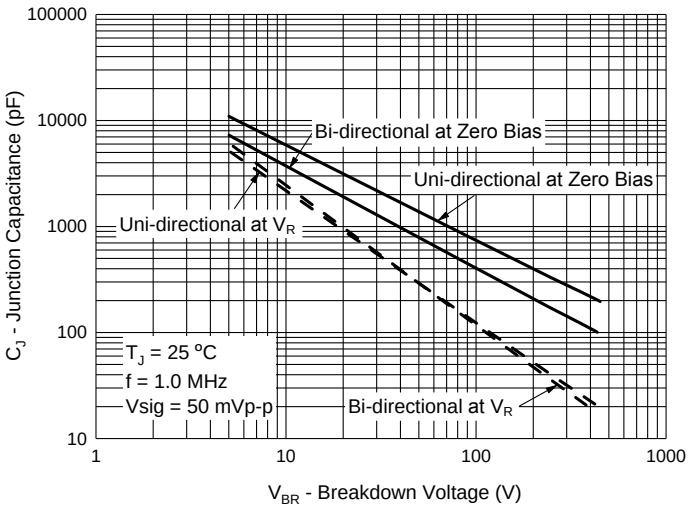


Fig. 3 - Pulse Waveform

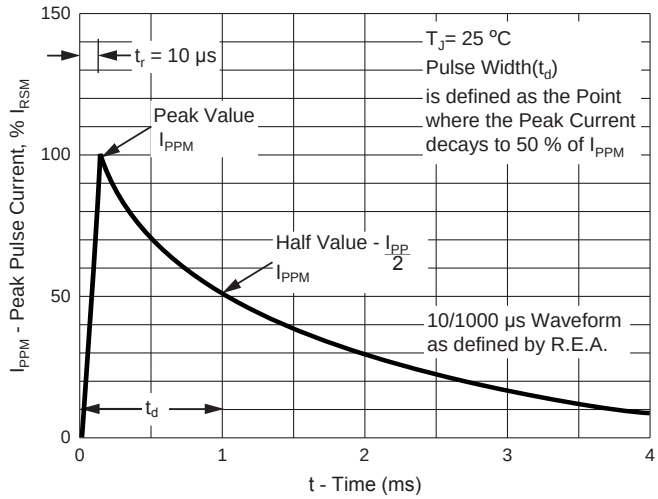
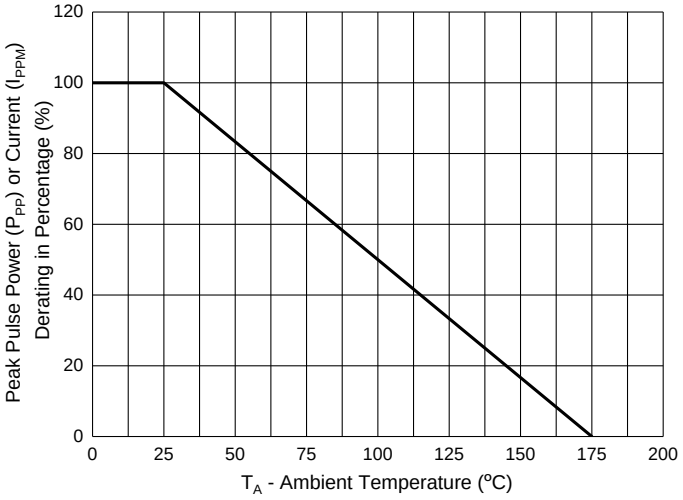


Fig. 4 - Pulse Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel