

Features

- Glass Passivated Chip
- 1500W Peak Pulse Power Capability with a 10/1000 us Waveform, Repetitive Rate(dutycycle):0.01%
- Low Incremental Surge Resistance, Excellent Clamping
- For Bidirectional Devices Add "C" To The Suffix of The Part Number: i.e.SMB15J15CA for 5% Tolerance
- 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 RoHS Compliant. See Ordering Information)

Mechanical Data

- Terminals: Solderable Per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Positive End (cathode) Except Bidirectiona

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

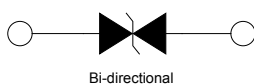
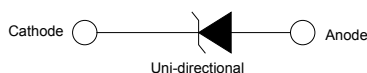
Electrical Characteristics @ 25°C Unless Otherwise Specified

Peak Pulse Power Surge Current on 10/1000µs Waveform	I_{PP}	See the Table	Note 3
Peak Pulse Power Dissipation	P_{PP}	1500W	Note 3
Power Dissipationon infinite heat sink	P_D	5.0W	$T_L = 75^\circ\text{C}$
Peak forward surge current	I_{FSM}	100A	Note 4
Maximum instantaneous forward voltage at 25A for unidirectional only	V_F	3.5V	

Notes:

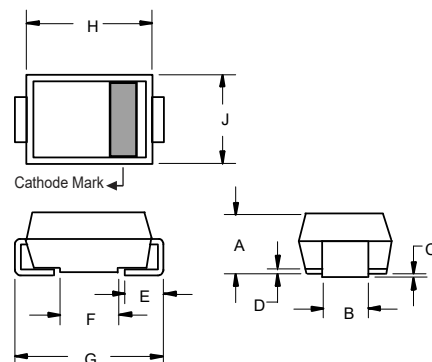
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
3. Non-repetitive current pulse, per Fig.3 and derated above $T_A=25^\circ\text{C}$ per Fig.4
4. Mounted on 0.2 x 0.2" (5.0 x 5.0 mm) copper pads to each terminal.

Pin Configuration:



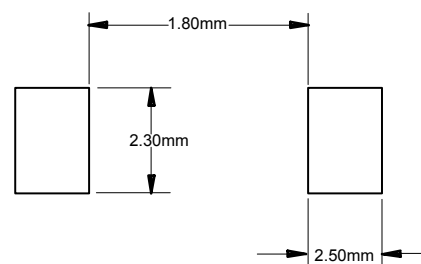
1500 Watt TVS 15 to 58 Volts

SMB (DO-214AA) (LEAD FRAME)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.075	0.087	1.91	2.21	
C	0.002	0.008	0.05	0.20	
D	0.006	0.012	0.15	0.31	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.200	0.220	5.08	5.59	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number		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)	Device Marking Code	
Uni	Bi	Min (V)	Max (V)	I_T (mA)					Uni	Bi
SMB15J15A	SMB15J15CA	16.70	18.50	1	5.0	15.0	61.48	24.4	15LM	15BM
SMB15J16A	SMB15J16CA	17.80	19.70	1	5.0	16.0	57.69	26.0	15LP	15BP
SMB15J17A	SMB15J17CA	18.90	20.90	1	5.0	17.0	54.35	27.6	15LR	15BR
SMB15J18A	SMB15J18CA	20.00	22.10	1	5.0	18.0	51.37	29.2	15LT	15BT
SMB15J19A	SMB15J19CA	21.10	23.30	1	5.0	19.0	48.73	30.8	15LB	15BB
SMB15J20A	SMB15J20CA	22.20	24.50	1	5.0	20.0	46.30	32.4	15LV	15BV
SMB15J22A	SMB15J22CA	24.40	26.90	1	5.0	22.0	42.25	35.5	15LX	15BX
SMB15J24A	SMB15J24CA	26.70	29.50	1	5.0	24.0	38.56	38.9	15LZ	15BZ
SMB15J26A	SMB15J26CA	28.90	31.90	1	5.0	26.0	35.63	42.1	15ME	15CE
SMB15J28A	SMB15J28CA	31.10	34.40	1	5.0	28.0	33.04	45.4	15MG	15CG
SMB15J30A	SMB15J30CA	33.30	36.80	1	5.0	30.0	30.99	48.4	15MK	15CK
SMB15J33A	SMB15J33CA	36.70	40.60	1	5.0	33.0	28.14	53.3	15MM	15CM
SMB15J36A	SMB15J36CA	40.00	44.20	1	5.0	36.0	25.82	58.1	15MP	15CP
SMB15J40A	SMB15J40CA	44.40	49.10	1	5.0	40.0	23.26	64.5	15MR	15CR
SMB15J43A	SMB15J43CA	47.80	52.80	1	5.0	43.0	21.61	69.4	15MT	15CT
SMB15J45A	SMB15J45CA	50.00	55.30	1	5.0	45.0	20.63	72.7	15MV	15CV
SMB15J48A	SMB15J48CA	53.30	58.90	1	5.0	48.0	19.38	77.4	15MX	15CX
SMB15J51A	SMB15J51CA	56.70	62.70	1	5.0	51.0	18.20	82.4	15MZ	15CZ
SMB15J54A	SMB15J54CA	60.00	66.30	1	5.0	54.0	17.22	87.1	15NE	15DE
SMB15J58A	SMB15J58CA	64.40	71.20	1	5.0	58.0	16.03	93.6	15NG	15DG

1. Add suffix 'CA' after part number to specify Bi-directional devices.

Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

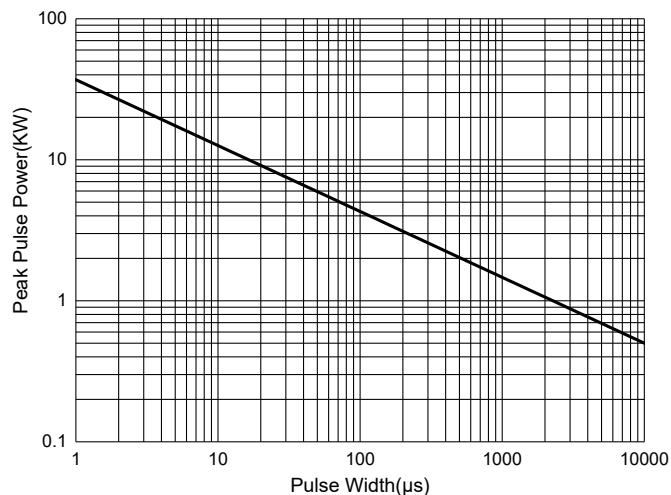


Fig. 2 - Power Derating Curve

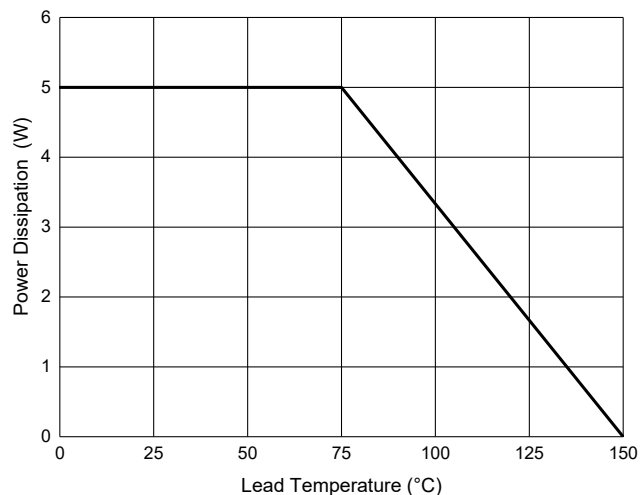


Fig. 3 - Pulse Waveform

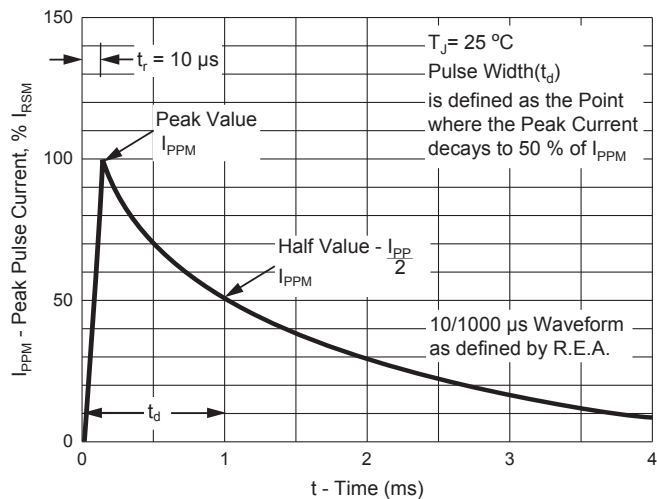
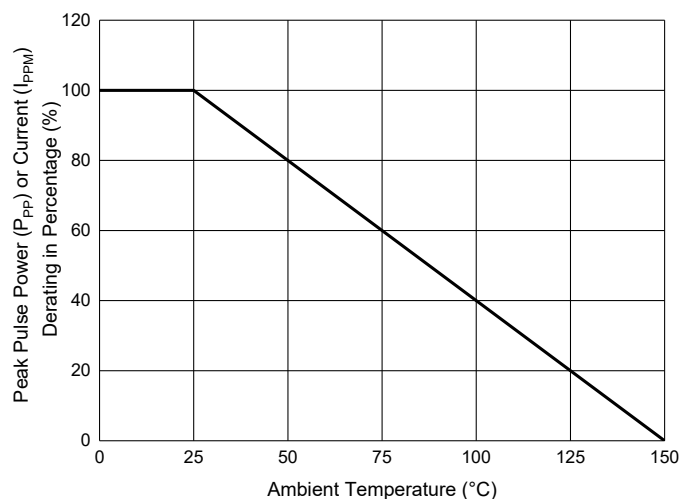


Fig. 4 - Pulse Derating Curve



Ordering Information

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

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<u>SMB15J51A-TP</u>	<u>SMB15J51CA-TP</u>	<u>SMB15J54A-TP</u>	<u>SMB15J54CA-TP</u>	<u>SMB15J43A-TP</u>	<u>SMB15J43CA-TP</u>
<u>SMB15J45A-TP</u>	<u>SMB15J45CA-TP</u>	<u>SMB15J48A-TP</u>	<u>SMB15J48CA-TP</u>	<u>SMB15J33A-TP</u>	<u>SMB15J33CA-TP</u>
<u>SMB15J36A-TP</u>	<u>SMB15J36CA-TP</u>	<u>SMB15J40A-TP</u>	<u>SMB15J40CA-TP</u>	<u>SMB15J22CA-TP</u>	<u>SMB15J24A-TP</u>
<u>SMB15J24CA-TP</u>	<u>SMB15J26A-TP</u>	<u>SMB15J26CA-TP</u>	<u>SMB15J28A-TP</u>	<u>SMB15J18CA-TP</u>	<u>SMB15J19A-TP</u>
<u>SMB15J19CA-TP</u>	<u>SMB15J20A-TP</u>	<u>SMB15J20CA-TP</u>	<u>SMB15J22A-TP</u>	<u>SMB15J15A-TP</u>	<u>SMB15J28CA-TP</u>
<u>SMB15J30A-TP</u>	<u>SMB15J30CA-TP</u>	<u>SMB15J58A-TP</u>	<u>SMB15J58CA-TP</u>		