

### 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

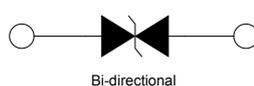
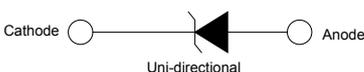
### Electrical Characteristics @ 25°C Unless Otherwise Specified

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	$T_L = 75^\circ C$
Peak forward surge current	$I_{FSM}$	100A	Note 4
Maximum instantaneous forward voltage at 25A for unidirectional only	$V_F$	3.5V	

#### Notes:

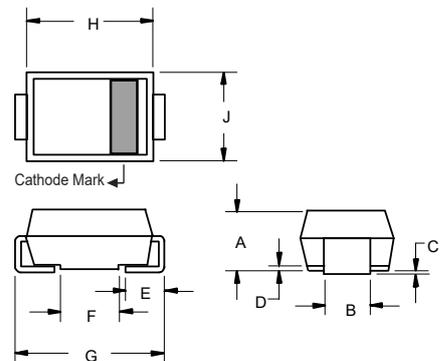
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
3. Non-repetitive current pulse, per Fig.3 and derated above  $T_A=25^\circ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

#### Pin Configuration:



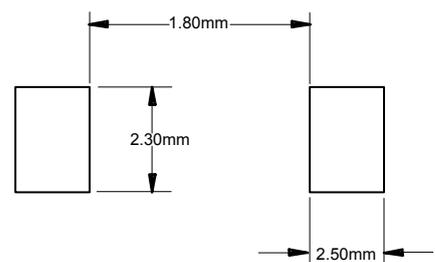
## 1500 Watt TVS 15 to 58 Volts

### 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 $I_R$ @ $V_{RWM}$ ( $\mu A$ )	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

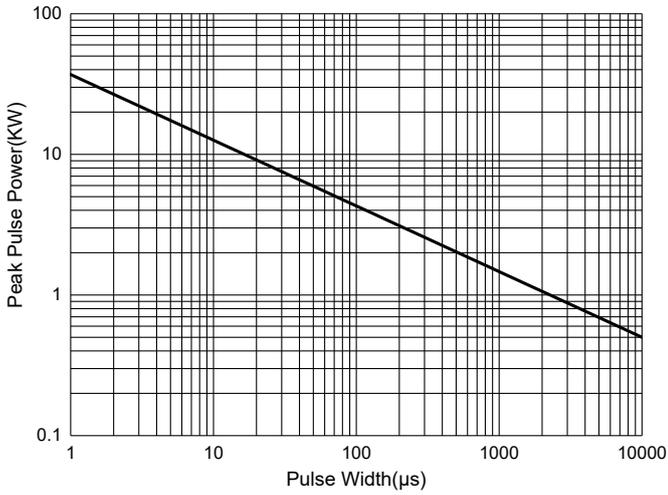


Fig. 2 - Power Derating Curve

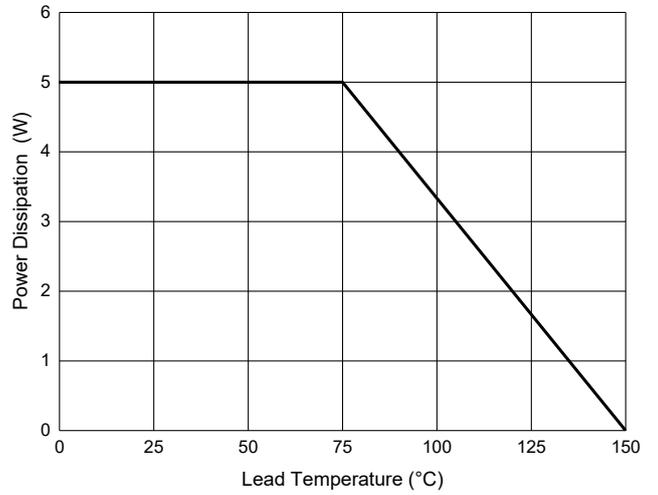


Fig. 3 - Pulse Waveform

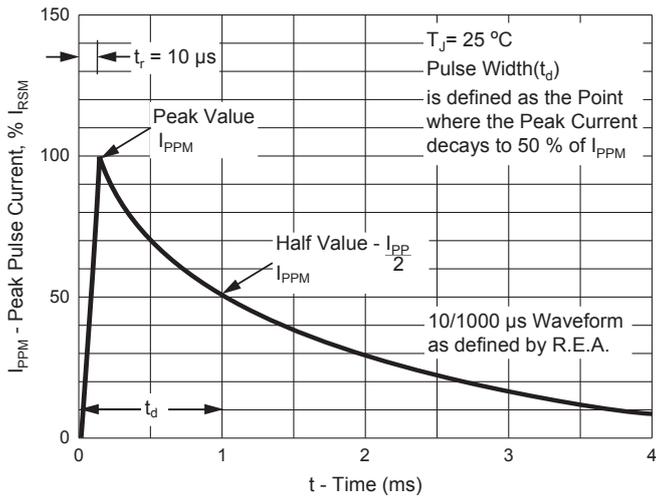
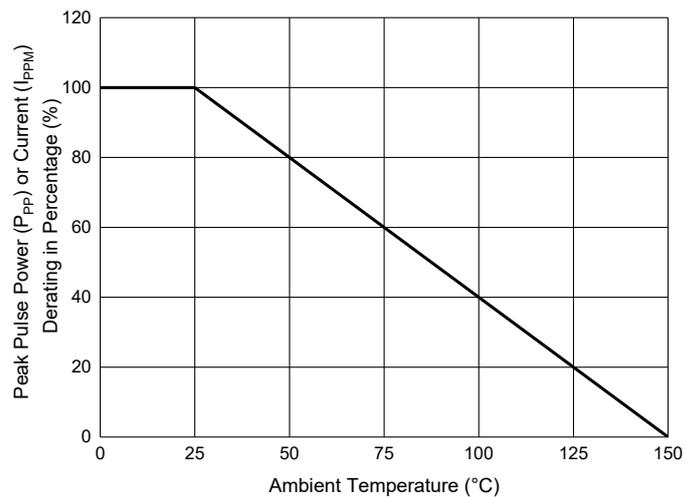


Fig. 4 - Pulse Derating Curve



### Ordering Information

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

**\*\*\*IMPORTANT NOTICE\*\*\***

*Micro Commercial Components Corp.* reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages. *Micro Commercial Components Corp.* products are sold subject to the general terms and conditions of commercial sale, as published at <https://www.mccsemi.com/Home/TermsAndConditions>.

**\*\*\*LIFE SUPPORT\*\*\***

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

**\*\*\*CUSTOMER AWARENESS\*\*\***

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.