

	<b>E480232</b>
---	----------------

**Features**

- AEC-Q101 Qualified
- Excellent Clamping Capability
- For Surface Mount Applications
- Glass Passivated Junction
- Halogen Free. "Green" Device (Note 1)
- High Temp Soldering: 260°C / 10 Seconds At Terminals
- For Bidirectional Devices Add "C" to The Suffix of The Part Number: i.e.SMA6J13CAHE3 for 5% Tolerance
- 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**

- Polarity: Indicated by Cathode Band Except Bi-directional Types

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 33°C/W Junction to Lead

Peak Pulse Power Surge Current with a 10/1000µs Waveform	$I_{PPM}$	See the Table	Note 3
Peak Pulse Power Dissipation	$P_{PPM}$	600 W(Min.)	Note 3
Power Dissipation on Infinite Heatsink	$P_D$	3.0 W	$T_L = 75^\circ C$
Peak Forward Surge Current Unidirectional Only	$I_{FSM}$	60 A	Note 4

**Note:**

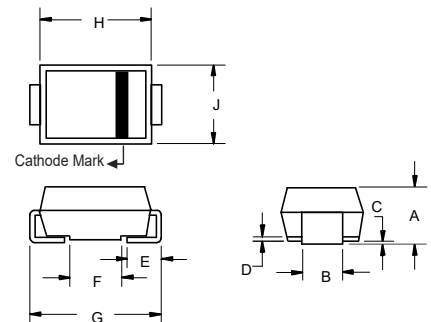
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High temperature solder exemption applied, see EU directive annex 7a.
3. Non-repetitive current pulse per Fig.3 and derated above  $T_A = 25^\circ C$  per Fig.4
4. Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum

**Pin Configuration:**



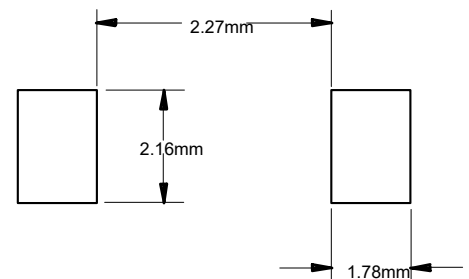
**600 Watt TVS  
13 to 40 Volts**

**SMA (DO-214AC)  
LEAD FRAME**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.075	0.096	1.90	2.44	
B	0.050	0.064	1.27	1.63	
C	0.002	0.008	0.051	0.203	
D	---	0.020	---	0.51	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.189	0.220	4.80	5.59	
H	0.157	0.187	4.00	4.75	
J	0.090	0.115	2.25	2.92	

**SUGGESTED SOLDER PAD LAYOUT**



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

MCC Part Number		Breakdown Voltage $V_{BR}$ @ $I_T$			Maximum Reverse Leakage $I_D$ ( $\mu A$ ) @ $V_{WM}$	Reverse Stand-Off Voltage $V_{WM}$ (Volts)	Maximum Reverse Surge Current $I_{pp}$ (A) @ 10x1000us sinewave	Maximum Clamping Voltage $V_c$ (Volts) @ $I_{pp}$	Device Marking Code	
		Min. (V)	Max. (V)	$I_T$ (mA)					Uni	Bi
SMA6J13AHE3	SMA6J13CAHE3	14.4	15.9	1	1.0	13	27.9	21.5	LG	UG
SMA6J14AHE3	SMA6J14CAHE3	15.6	17.2	1	1.0	14	25.9	23.2	LK	UK
SMA6J15AHE3	SMA6J15CAHE3	16.7	18.5	1	1.0	15	24.6	24.4	LM	UM
SMA6J16AHE3	SMA6J16CAHE3	17.8	19.7	1	1.0	16	23.1	26.0	LP	UP
SMA6J17AHE3	SMA6J17CAHE3	18.9	20.9	1	1.0	17	21.7	27.6	LR	UR
SMA6J18AHE3	SMA6J18CAHE3	20.0	22.1	1	1.0	18	20.5	29.2	LT	UT
SMA6J19AHE3	SMA6J19CAHE3	21.1	23.3	1	1.0	19	19.5	30.8	LB	UB
SMA6J20AHE3	SMA6J20CAHE3	22.2	24.5	1	1.0	20	18.5	32.4	LV	UV
SMA6J22AHE3	SMA6J22CAHE3	24.4	26.9	1	1.0	22	16.9	35.5	LX	UX
SMA6J24AHE3	SMA6J24CAHE3	26.7	29.5	1	1.0	24	15.4	38.9	LZ	UZ
SMA6J26AHE3	SMA6J26CAHE3	28.9	31.9	1	1.0	26	14.3	42.1	ME	WE
SMA6J28AHE3	SMA6J28CAHE3	31.1	34.4	1	1.0	28	13.2	45.4	MG	WG
SMA6J30AHE3	SMA6J30CAHE3	33.3	36.8	1	1.0	30	12.4	48.4	MK	WK
SMA6J33AHE3	SMA6J33CAHE3	36.7	40.6	1	1.0	33	11.3	53.3	MM	WM
SMA6J36AHE3	SMA6J36CAHE3	40.0	44.2	1	1.0	36	10.3	58.1	MP	WP
SMA6J40AHE3	SMA6J40CAHE3	44.4	49.1	1	1.0	40	9.3	64.5	MR	WR

**Curve Characteristics**

Fig. 1 - Peak Pulse Power Rating Curve

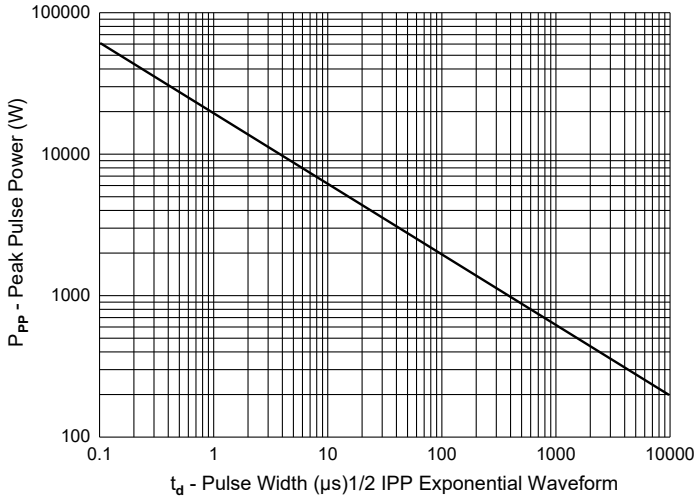


Fig. 2 - Typical Junction Capacitance

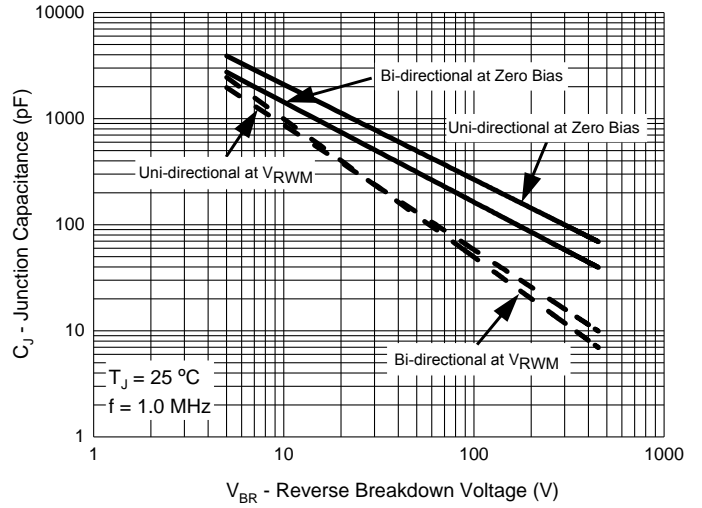


Fig. 3 - Pulse Waveform

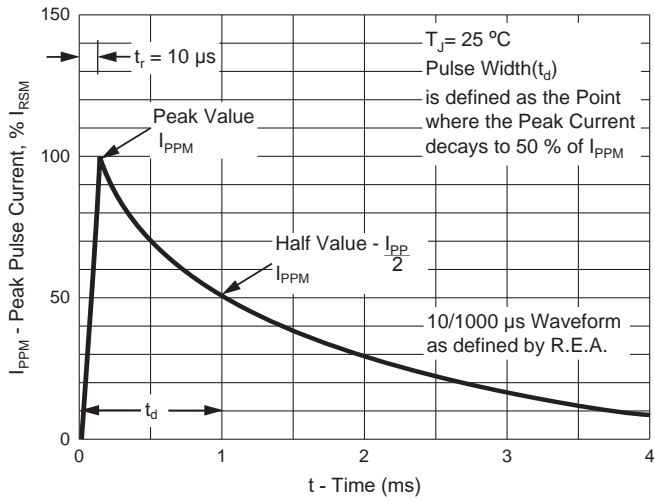
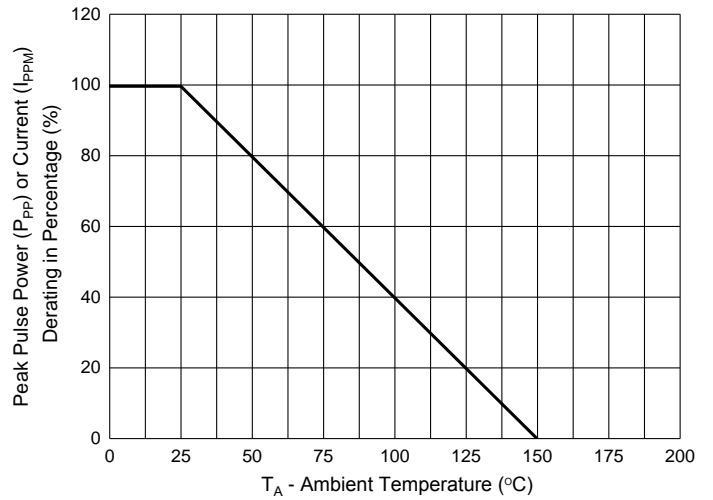


Fig. 4 - Pulse Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:5Kpcs/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.