

# SMA6J5.0A THRU SMA6J40CA

## 600 Watt Transient Voltage Suppressors 5.0 to 40 Volts

### Features

- For Surface Mount Applications
- Unidirectional And Bidirectional
- High Surge Capability
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- For Bidirectional Devices Add "C" To The Suffix of The Part Number: i.e.SMA6J9.0CA for 5% Tolerance
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"
- UL Recognized File # E480232

### Mechanical Data

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Polarity: Indicated by cathode band except bi-directional types

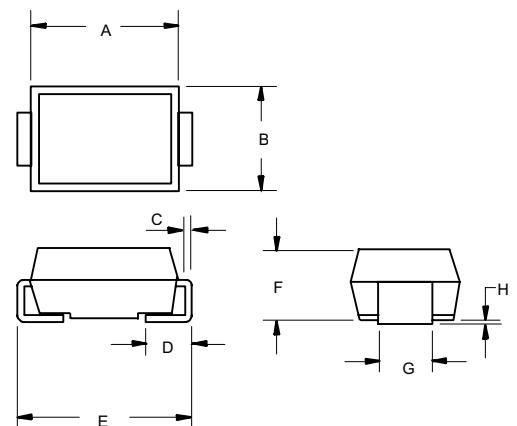
### Maximum Rating:

- Operating Temperature: -55°C to +175°C
- Storage Temperature: -55°C to +175°C
- Typical Thermal Resistance: 33°C/W Junction to lead

Peak Pulse Current on 10/1000us Waveform	I <sub>PPM</sub>	See Table 1	Note 2
Peak Pulse Power Dissipation	P <sub>PPM</sub>	Min 600 W	Note 2, 6
Steady State Power Dissipation	P <sub>M(AV)</sub>	3.0 W	Note 5

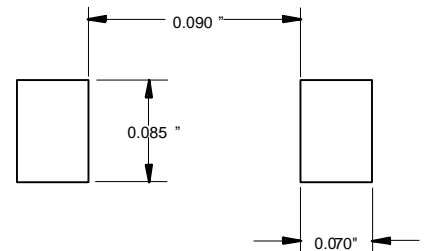
- Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.
2. Non-repetitive current pulse, per Fig.4 and derated above T<sub>A</sub>=25°C per Fig1
  3. Mounted on 5.0mm<sup>2</sup> copper pads to each terminal.
  4. 8.3ms, single half sine wave duty cycle = 4 pulses per Minutes maximum.
  5. Lead temperature at T<sub>L</sub> = 75°C.
  6. Peak pulse power waveform is 10/1000us

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



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.157	.181	4.00	4.60	
B	.098	.114	2.50	2.90	
C	.006	.012	0.152	0.305	
D	.030	.060	0.76	1.52	
E	.188	.208	4.80	5.28	
F	.078	.096	2.00	2.44	
G	.050	.064	1.27	1.63	
H	.002	.008	0.051	0.203	

#### SUGGESTED SOLDER PAD LAYOUT



# SMA6J5.0A thru SMA6J40CA

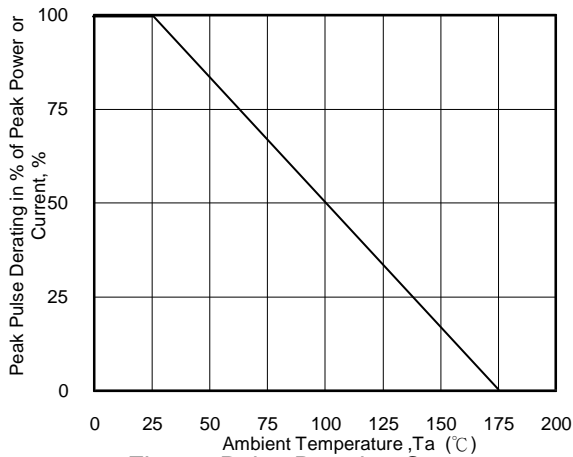


Fig. 1 - Pulse Derating Curve

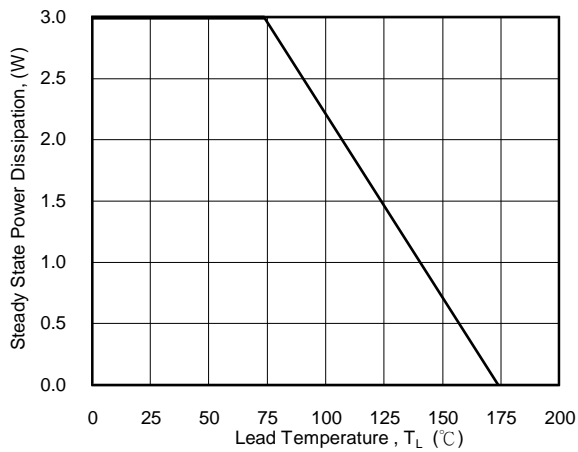


Fig. 2 - Steady State Power Derating Curve

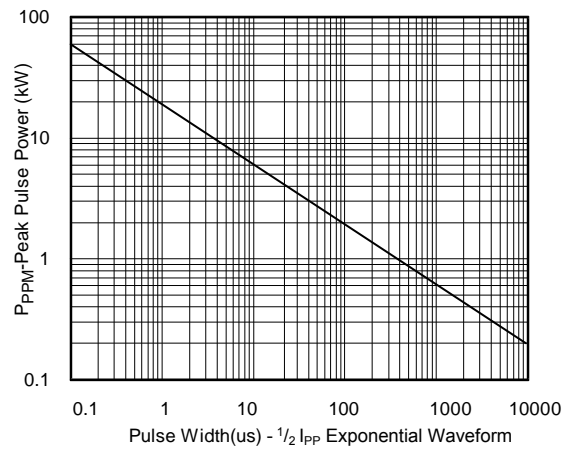


Fig. 3 - Peak Pulse Power Rating Curve

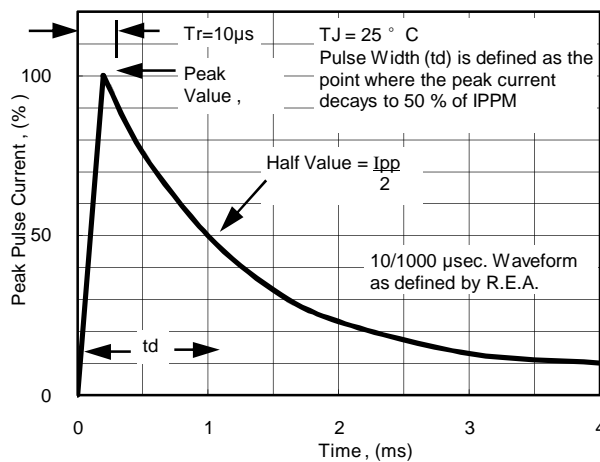


Fig. 4 - Pulse Waveform

# SMA6J5.0A thru SMA6J40CA

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 $I_{pp}(A)$ @ $10 \times 1000 \mu s$ sinewave	Maximum Clamping Voltage $V_c$ (Volts) @ $I_{pp}$	Device Marking Code	
		Uni-polar	Bi-polar	Min. (V)					Max. (V)	$I_T$ (mA)
SMA6J5.0A		6.40	7.00	10	800	5.0	65.2	9.2	KE	
SMA6J6.0A	SMA6J6.0CA	6.67	7.37	10	800	6.0	58.3	10.3	KG	TG
SMA6J6.5A	SMA6J6.5CA	7.22	7.98	10	500	6.5	53.6	11.2	KK	TK
SMA6J7.0A	SMA6J7.0CA	7.78	8.60	10	200	7.0	50.0	12.0	KM	TM
SMA6J7.5A	SMA6J7.5CA	8.33	9.21	1	100	7.5	46.5	12.9	KP	TP
SMA6J8.0A	SMA6J8.0CA	8.89	9.83	1	50	8.0	44.1	13.6	KR	TR
SMA6J8.5A	SMA6J8.5CA	9.44	10.4	1	10	8.5	41.7	14.4	KT	TT
SMA6J9.0A	SMA6J9.0CA	10.0	11.1	1	5.0	9.0	39.0	15.4	KV	TV
SMA6J10A	SMA6J10CA	11.1	12.3	1	1.0	10	35.3	17.0	KX	TX
SMA6J11A	SMA6J11CA	12.2	13.5	1	1.0	11	33.0	18.2	KZ	TZ
SMA6J12A	SMA6J12CA	13.3	14.7	1	1.0	12	30.2	19.9	LE	UE
SMA6J13A	SMA6J13CA	14.4	15.9	1	1.0	13	27.9	21.5	LG	UG
SMA6J14A	SMA6J14CA	15.6	17.2	1	1.0	14	25.9	23.2	LK	UK
SMA6J15A	SMA6J15CA	16.7	18.5	1	1.0	15	24.6	24.4	LM	UM
SMA6J16A	SMA6J16CA	17.8	19.7	1	1.0	16	23.1	26.0	LP	UP
SMA6J17A	SMA6J17CA	18.9	20.9	1	1.0	17	21.7	27.6	LR	UR
SMA6J18A	SMA6J18CA	20.0	22.1	1	1.0	18	20.5	29.2	LT	UT
SMA6J19A	SMA6J19CA	21.1	23.3	1	1.0	19	19.5	30.8	LB	UB
SMA6J20A	SMA6J20CA	22.2	24.5	1	1.0	20	18.5	32.4	LV	UV
SMA6J22A	SMA6J22CA	24.4	26.9	1	1.0	22	16.9	35.5	LX	UX
SMA6J24A	SMA6J24CA	26.7	29.5	1	1.0	24	15.4	38.9	LZ	UZ
SMA6J26A	SMA6J26CA	28.9	31.9	1	1.0	26	14.3	42.1	ME	WE
SMA6J28A	SMA6J28CA	31.1	34.4	1	1.0	28	13.2	45.4	MG	WG
SMA6J30A	SMA6J30CA	33.3	36.8	1	1.0	30	12.4	48.4	MK	WK
SMA6J33A	SMA6J33CA	36.7	40.6	1	1.0	33	11.3	53.3	MM	WM
SMA6J36A	SMA6J36CA	40.0	44.2	1	1.0	36	10.3	58.1	MP	WP
SMA6J40A	SMA6J40CA	44.4	49.1	1	1.0	40	9.3	64.5	MR	WR

Note:

1. For Bi-Directional devices having VR of 10 volts and under, the IR limit is double .
2. The items in blue character are still under development.



Micro Commercial Components

Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

\*\*\*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.

\*\*\*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.