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## SMA6J5.0A THRU SMA6J33A

**600 Watt  
Transient Voltage  
Suppressors  
5.0 to 33 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)

### 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:

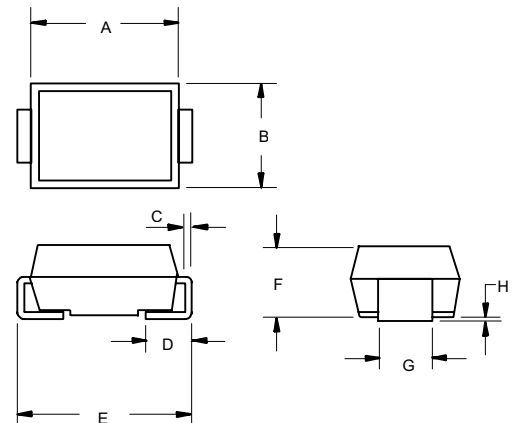
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance: 25°C/W Junction to Ambient

Peak Pulse Current on 10/1000µs 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
Peak Forward Surge Current	I <sub>FSM</sub>	70A	Note:5

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

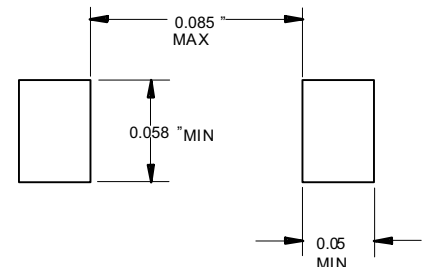
2. Non-repetitive current pulse, per Fig.4 and derated above T<sub>A</sub>=25°C per Fig.1.
3. Mounted on 5.0mm<sup>2</sup> copper pads to each terminal.
4. 8.3ms, single half sine wave duty cycle = 4 pulses per Minutes maximum.
5. Lead temperature at T<sub>L</sub> = 75°C.
6. Peak pulse power waveform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

### 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	.055	.062	1.40	1.60	
H	.002	.008	0.051	0.203	

### SUGGESTED SOLDER PAD LAYOUT





# SMA6J5.0A thru SMA6J33A

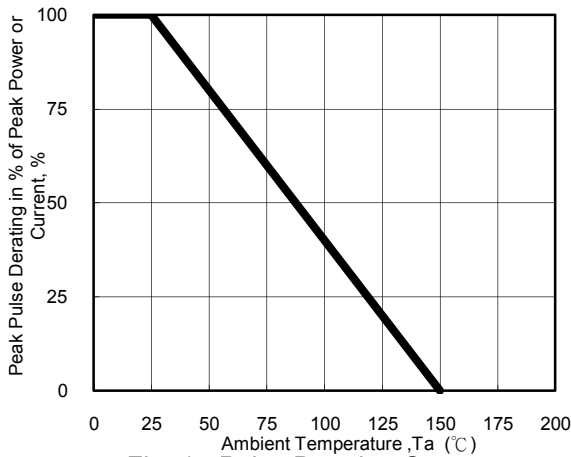


Fig. 1 - Pulse Derating Curve

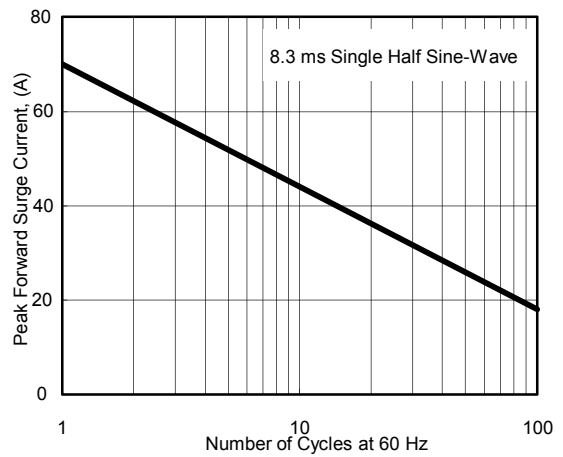


Fig. 2 - Maximum Non-Repetitive Surge Current

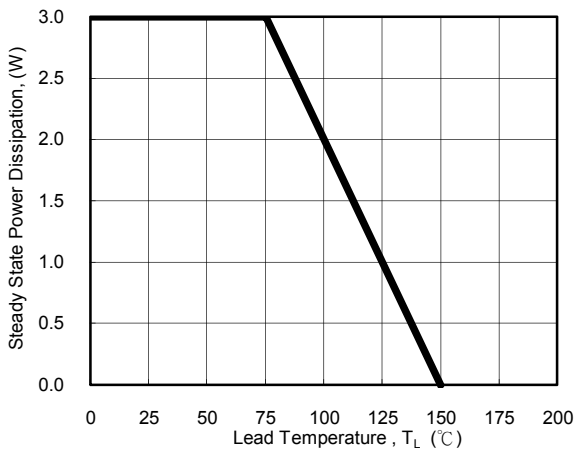


Fig. 3 - Steady State Power Derating Curve

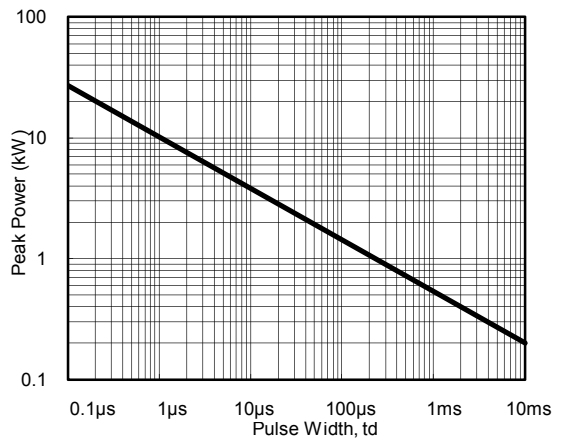


Fig. 4 - Peak Pulse Power Rating Curve

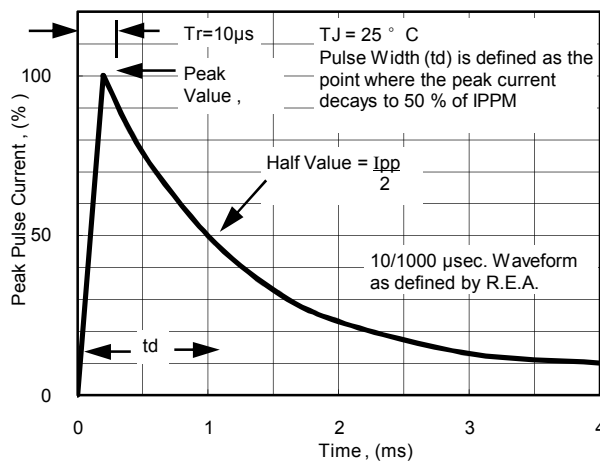


Fig. 5 - Pulse Waveform

# SMA6J5.0A thru SMA6J33A



Part Number		Breakdown Voltage $V_{BR}$ @ $I_T$			Maximum Reverse Leakage $I_D$ ( $\mu$ A) @VWM	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	
		Uni-polar	Bi-polar	Min. (V)					Max. (V)	$I_T$ (mA)
<a href="#">SMA6J5.0A</a>		6.40	7.00	10	800	5.0	65.2	9.2	KE	
<a href="#">SMA6J6.0A</a>		6.67	7.37	10	800	6.0	58.3	10.3	KG	
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	5.0	10	35.3	17.0	KX	TX
SMA6J11A	SMA6J11CA	12.2	13.5	1	5.0	11	33.0	18.2	KZ	TZ
SMA6J12A	SMA6J12CA	13.3	14.7	1	5.0	12	30.2	19.9	LE	UE
SMA6J13A	SMA6J13CA	14.4	15.9	1	5.0	13	27.9	21.5	LG	UG
SMA6J14A	SMA6J14CA	15.6	17.2	1	5.0	14	25.9	23.2	LK	UK
SMA6J15A	SMA6J15CA	16.7	18.5	1	5.0	15	24.6	24.4	LM	UM
SMA6J16A	SMA6J16CA	17.8	19.7	1	5.0	16	23.1	26.0	LP	UP
SMA6J17A	SMA6J17CA	18.9	20.9	1	5.0	17	21.7	27.6	LR	UR
SMA6J18A		20.0	22.1	1	5.0	18	20.5	29.2	LT	
SMA6J19A		21.1	23.3	1	5.0	19	19.5	30.8	LB	
SMA6J20A		22.2	24.5	1	5.0	20	18.5	32.4	LV	
SMA6J22A		24.4	26.9	1	5.0	22	16.9	35.5	LX	
SMA6J24A	<a href="#">SMA6J24CA</a>	26.7	29.5	1	5.0	24	15.4	38.9	LZ	UZ
SMA6J26A		28.9	31.9	1	5.0	26	14.3	42.1	ME	
	<a href="#">SMA6J28CA</a>	31.1	34.4	1	5.0	28	13.2	45.4		WG
<a href="#">SMA6J33A</a>		36.7	40.6	1	5.0	33	11.3	53.3	MM	

**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.