



# THE DATASHEET OF SMA6F13A-TP



## Features

- For Surface Mounted Applications in Order to Optimize Board Space
- Glass Passivated Junction
- Excellent Clamping Capability
- High Temp Soldering: 260°C / 40 Seconds At Terminals
- 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)

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C

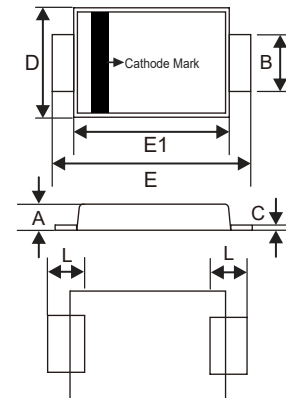
Peak Pulse Power Surge Current with a 10/1000µs Waveform	$I_{PPM}$	See the Table	Note 3
Peak Pulse Power Dissipation	$P_{PPM}$	600W (Min.)	Note 3,4

### 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.2 and derated above  $T_A=25^\circ\text{C}$  per Fig.1
4. Peak pulse power waveform is 10/1000 µs

**600Watts TVS**  
**5.0 to 13 Volts**

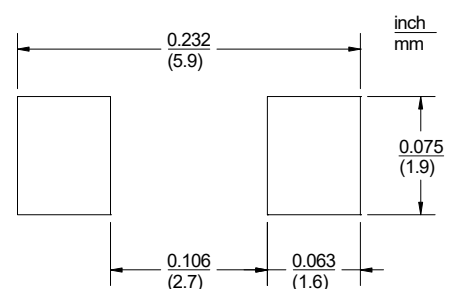
## DO-221AC(SMA-FL)



### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.035	0.049	0.90	1.25	
B	0.049	0.065	1.25	1.65	
C	0.004	0.016	0.10	0.40	
D	0.089	0.116	2.25	2.95	
E	0.173	0.220	4.40	5.60	
E1	0.126	0.181	3.20	4.60	
L	0.020	0.059	0.50	1.50	

### Suggested Solder Pad Layout



MCC PART NUMBER	DEVICE MARKING CODE	REVERSE STAND- OFF VOLTAGE $V_{RWM}(V)$	BREAKDOWN VOLTAGE $V_{BR}(V) @ I_T$		TEST CURRENT $I_T$ (mA)	MAXIMUM CLAMPING VOLTAGE $@ I_{pp} V_c(V)$	PEAK PULSE CURRENT $I_{pp}$ (A)	REVER LEAKA $@ V_{RWM} I_R$ ( $\mu A$ )
			MIN	MAX				
SMA6F5.0A	SUA	5.0	6.40	7.07	10	9.2	68.0	800
SMA6F12A	SUJ	12	13.30	14.70	1	18.5	31.0	5.0
SMA6F13A	SUG	13	14.40	15.90	1	20.4	29.0	5.0

### Curve Characteristics

Fig. 1 - Pulse Derating Curve

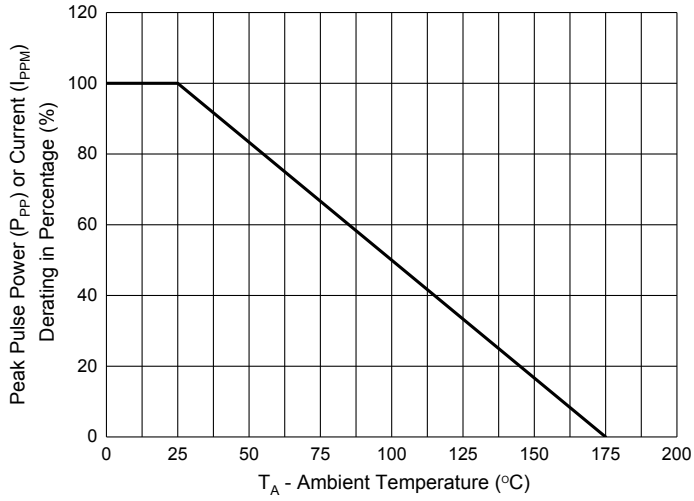
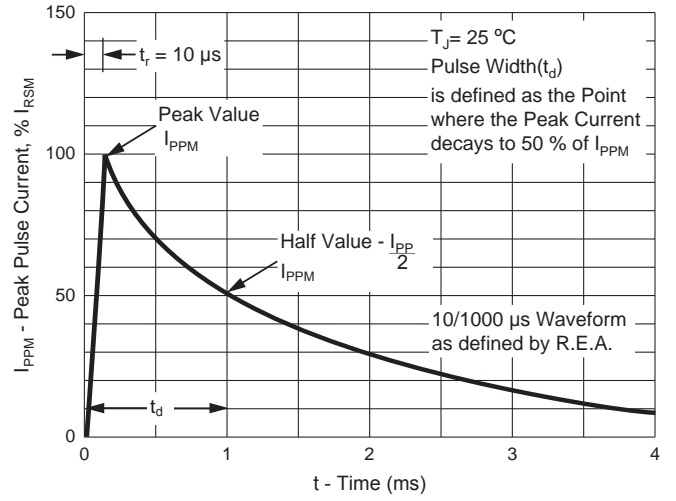


Fig. 2 - Pulse Waveform



## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel: 10Kpcs/Reel

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