



P6SMAFJ5.0A SERIES

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

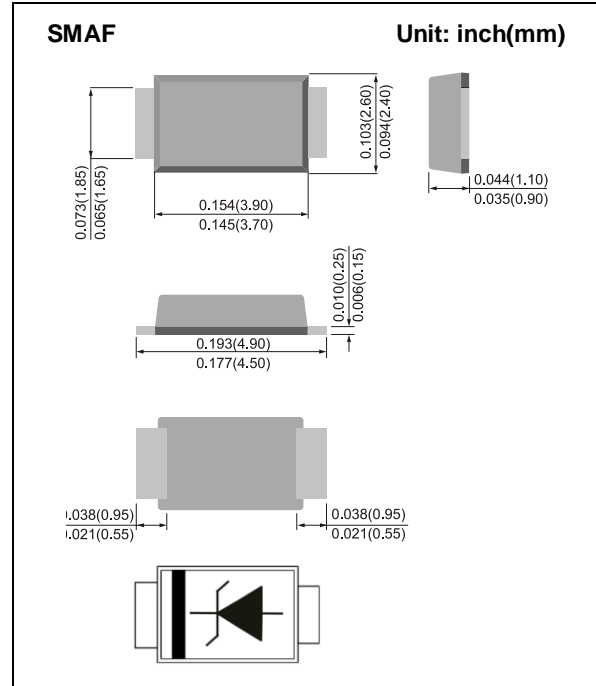
Voltage 5~8 V **Power** 600 W

Features

- For surface mounted applications in order to optimize board space.
- Ultra thin profile package for space constrained utilization.
- Package suitable for automated handling
- Low inductance
- High temperature soldering : 260°C/10 seconds at terminals
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std.(Halogen Free)

Mechanical Data

- Case: SMAF, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.0012 ounces, 0.033 grams



Maximum Ratings

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation($t_p=10/1000\mu s$) ^(NOTE1,2)	P_{PP}	600	W
Peak Forward Surge Current (8.3ms single half sine-wave)	I_{FSM}	100	A
Peak Pulse Current on $t_p=10/1000\mu s$ Waveform ^(NOTE1, Fig.2)	I_{PPM}	See table 1	A
ESD IEC61000-4-2(Air)	V_{ESD}	±30	kV
ESD IEC61000-4-2(Contact)		±30	
Typical Thermal Resistance Junction to Ambient ^(NOTE 3)	$R_{\theta JA}$	150	°C/W
Operating Junction Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Notes :

1. Non-repetitive current pulse, per Fig.3 and derated above $T_A=25^\circ C$ per Fig.2
2. Mounted on 5mm² copper pads to each terminal.
3. Mounted on a FR4 PCB, single-sided copper, mini pad.
4. A transient suppressor is selected according to the working peak reverse voltage(V_{RWM}), which should be equal to or greater than the DC or continuous peak operation voltage level.
5. TVS is a transient protection device, it is strongly recommended not to use as a Zener.



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Electrical Characteristics

Part Number	V_{RWM} (NOTE 4)	V_{BR}			$I_R@V_{RWM}$	$V_C@I_{PP}$		Marking Code
		Min.	Max.	I_T		Max.		
	V	V	V	mA	μA	V	A	
P6SMAFJ5.0A	5	6.4	7	10	400	9.2	65.2	FKES
P6SMAFJ6.0A	6	6.67	7.37	10	400	10.3	58.3	FKGS
P6SMAFJ6.5A	6.5	7.22	7.98	10	250	11.2	53.6	FKKS
P6SMAFJ7.0A	7	7.78	8.6	10	100	12	50	FKMS
P6SMAFJ7.5A	7.5	8.33	9.21	1	50	12.9	46.5	FKPS
P6SMAFJ8.0A	8	8.89	9.83	1	25	13.6	44.1	FKRS



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TYPICAL CHARACTERISTIC CURVES

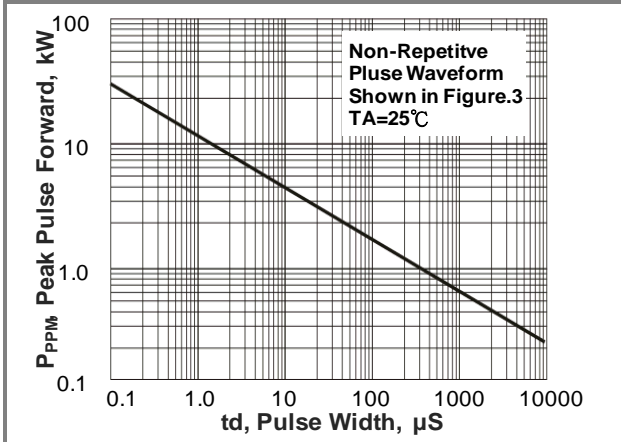


Fig.1 Peak Pulse Power Rating Curve

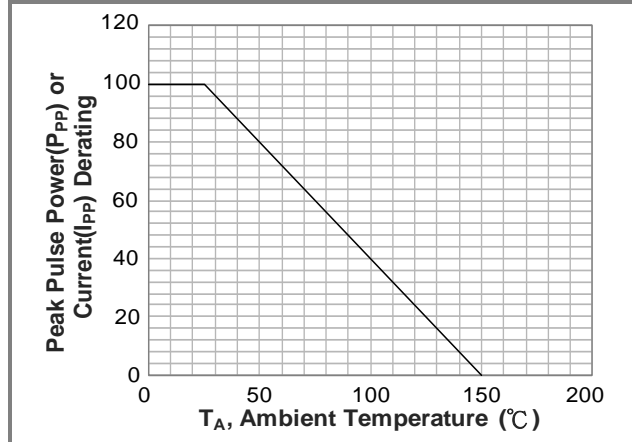


Fig.2 Derating Curve

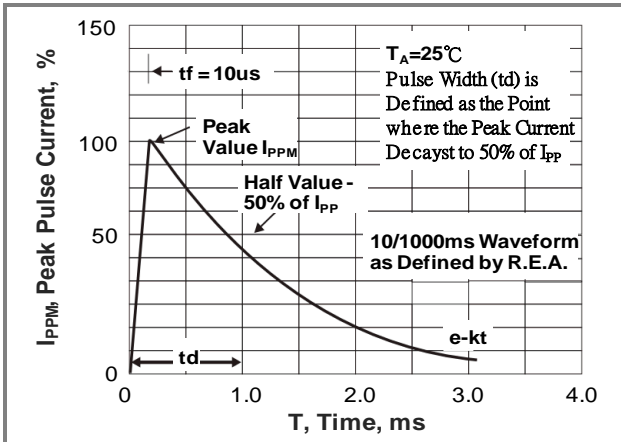


Fig.3 Pulse Waveform

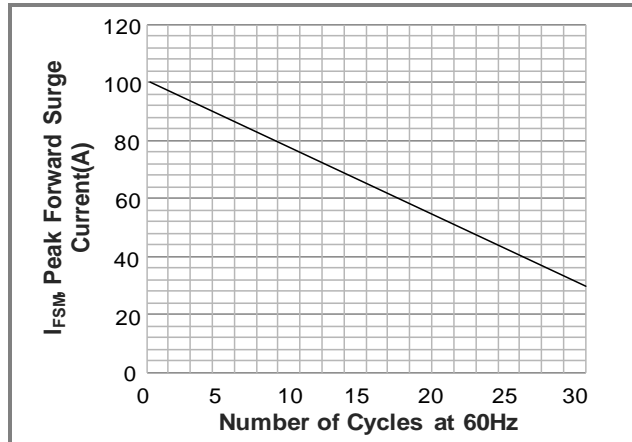


Fig.4 Maximum Non-repetitive Peak Forward Surge Current

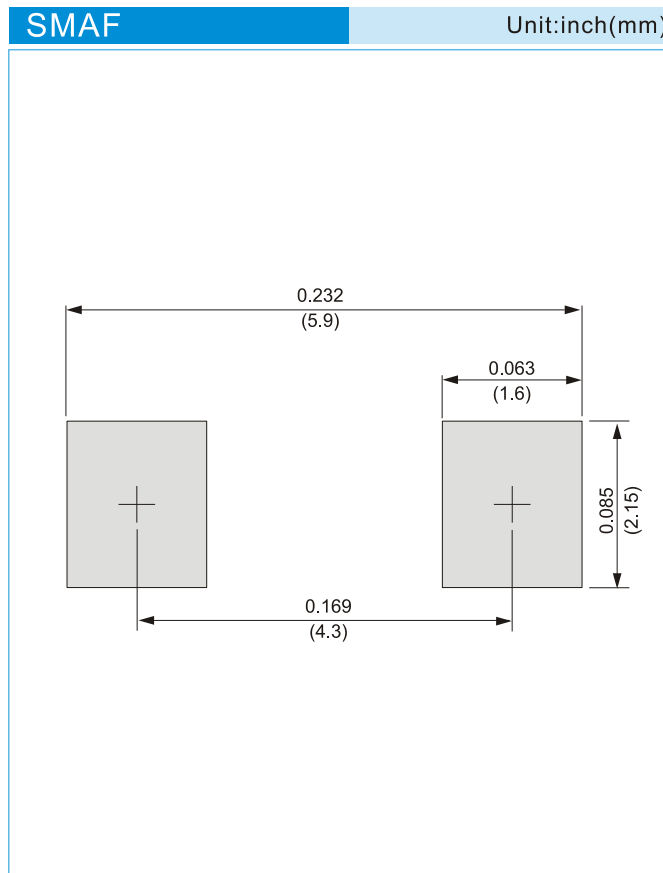


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Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
P6SMAFJ5.0A_R1_00001	SMAF	3K pcs / 7" reel	FKCS	Halogen free
P6SMAFJ5.0A_R2_00001	SMAF	10K pcs / 13" reel	FKCS	Halogen free

MOUNTING PAD LAYOUT





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