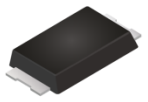
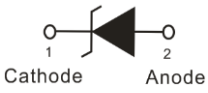
P6AFC3.3A ~ P6AFC64A Series

Transient Voltage Suppressor

Voltage	3.3~64 V	Power	600 W

SMAF-C





Features

- Small plastic package suitable for surface-mounted design
- Very low package height: 1 mm
- Excellent clamping capability
- Ultra low reverse current
- High temperature soldering : 260°C/10 seconds at terminals
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : Molded plastic, SMAF-C
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0012 ounces, 0.034 grams

Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation(tp=10/1000us)(Note 1,2)	P_{PP}	600	W
Peak Forward Surge Current (8.3ms single half sine-wave)	I_{FSM}	100	A
Peak Pulse Current on tp=10/1000us Waveform(Note1,Fig.2)	I_{PPM}	See next table	A
Power Dissipation on Infinite Heat Sink at T_L = 50 °C	P_D	5	W
ESD IEC61000-4-2(Air) ESD IEC61000-4-2(Contact)	V_{ESD}	±30 ±30	kV
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℃ per Fig.2
2. Mounted on 5.0x5.0mm copper pads to each terminal.
3. Mounted on a FR4 PCB, single-sided copper, standard footprint.
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.

P6AFC3.3A ~ P6AFC64A Series

Electrical Characteristics (T_A = 25 °C unless otherwise noted)

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	uA	V	A	
P6AFC3.3A	3.3	5.2	6	10	100	8	75	6E3V3
P6AFC5.0A	5	6.4	7	10	50	9.2	65.2	6E5V0
P6AFC6.0A	6	6.67	7.37	10	50	10.3	58.3	6E6V0
P6AFC6.5A	6.5	7.22	7.98	10	40	11.2	53.6	6E6V5
P6AFC7.0A	7	7.78	8.6	10	40	12	50	6E7V0
P6AFC7.5A	7.5	8.33	9.21	1	30	12.9	46.5	6E7V5
P6AFC8.0A	8	8.89	9.83	1	5	13.6	44.1	6E8V0
P6AFC8.5A	8.5	9.44	10.4	1	5	14.4	41.7	6E8V5
P6AFC9.0A	9	10	11.1	1	0.5	15.4	39	6E9V0
P6AFC10A	10	11.1	12.3	1	0.5	17	35.3	6E10
P6AFC11A	11	12.2	13.5	1	0.5	18.2	33	6E11
P6AFC12A	12	13.3	14.7	1	0.5	19.9	30.2	6E12
P6AFC13A	13	14.4	15.9	1	0.1	21.5	27.9	6E13
P6AFC14A	14	15.6	17.2	1	0.1	23.2	25.9	6E14
P6AFC15A	15	16.7	18.5	1	0.1	24.4	24.6	6E15
P6AFC16A	16	17.8	19.7	1	0.1	26	23.1	6E16
P6AFC17A	17	18.9	20.9	1	0.1	27.6	21.7	6E17
P6AFC18A	18	20	22.1	1	0.1	29.2	20.5	6E18
P6AFC20A	20	22.2	24.5	1	0.1	32.4	18.5	6E20
P6AFC22A	22	24.4	26.9	1	0.1	35.5	16.9	6E22
P6AFC24A	24	26.7	29.5	1	0.1	38.9	15.4	6E24
P6AFC26A	26	28.9	31.9	1	0.1	42.1	14.3	6E26
P6AFC28A	28	31.1	34.4	1	0.1	45.4	13.2	6E28
P6AFC30A	30	33.3	36.8	1	0.1	48.4	12.4	6E30
P6AFC33A	33	36.7	40.6	1	0.1	53.3	11.3	6E33
P6AFC36A	36	40	44.2	1	0.1	58.1	10.3	6E36
P6AFC40A	40	44.4	49.1	1	0.1	64.5	9.3	6E40
P6AFC43A	43	47.8	52.8	1	0.1	69.4	8.6	6E43
P6AFC45A	45	50	55.3	1	0.1	72.7	8.3	6E45
P6AFC48A	48	53.3	58.9	1	0.1	77.4	7.8	6E48
P6AFC51A	51	56.7	62.7	1	0.1	82.4	7.3	6E51
P6AFC54A	54	60	66.3	1	0.1	87.1	6.9	6E54
P6AFC58A	58	64.4	71.2	1	0.1	93.6	6.4	6E58
P6AFC60A	60	66.7	73.7	1	0.1	96.8	6.2	6E60
P6AFC64A	64	71.1	78.6	1	0.1	103	5.8	6E64

P6AFC3.3A ~ P6AFC64A Series

TYPICAL CHARACTERISTIC CURVES

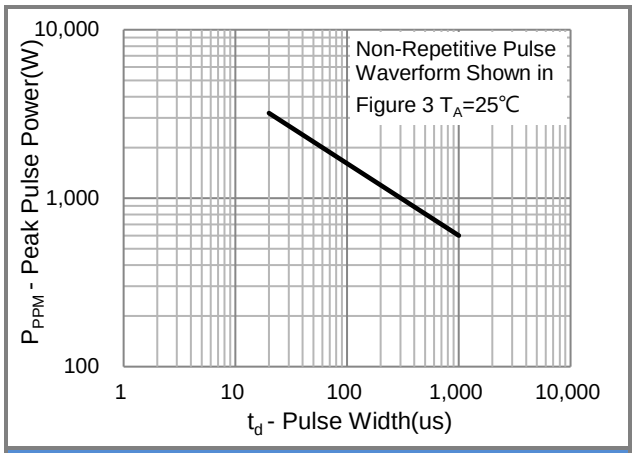


Fig.1 Pulse Power Rating Curve

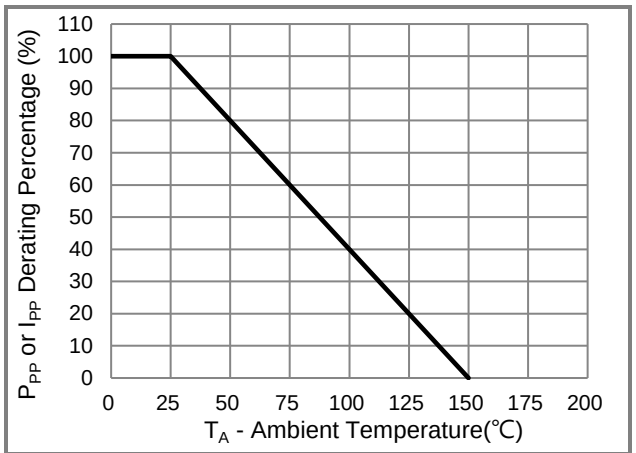


Fig.2 Derating Curve

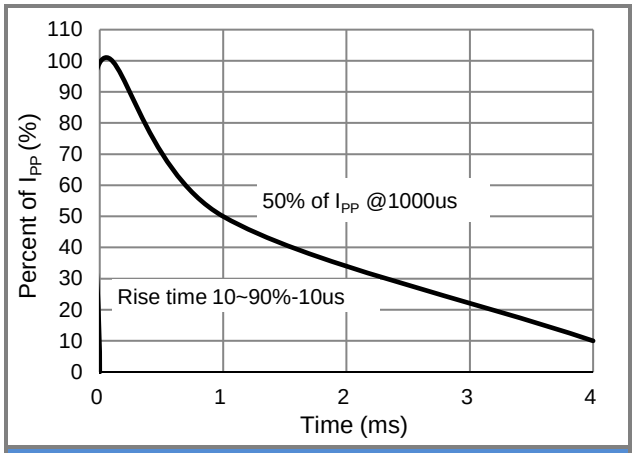


Fig.3 10/1000us Pulse Waveform

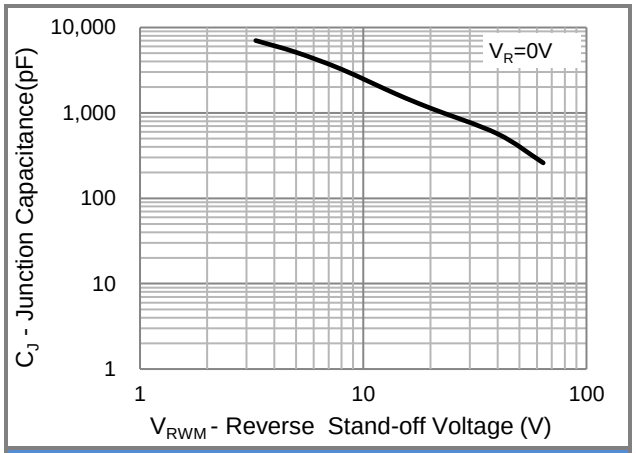


Fig.4 Typical Capacitance

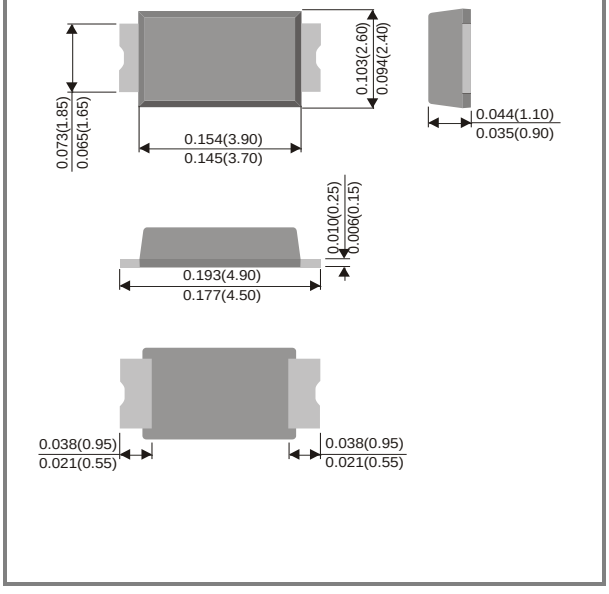
P6AFC3.3A ~ P6AFC64A Series

Product and Packing Information

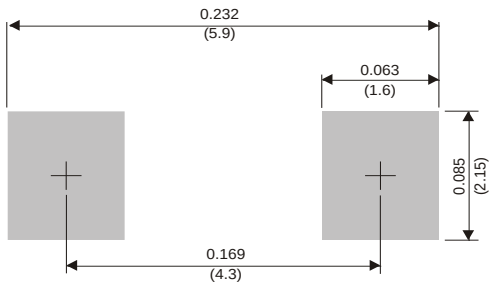
Part No.	Package Type	Packing Type	Marking
P6AFCxxxA	SMAF-C	3K pcs / 7” reel	See Table

Packaging Information & Mounting Pad Layout

SMAF-C Dimension — Unit: inch(mm)



SMAF-C Pad Layout — Unit: inch(mm)



P6AFC3.3A ~ P6AFC64A Series

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