



# P6AF3.3A~P6AF64A

## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

**Voltage** 3.3~64 V **Power** 600 W

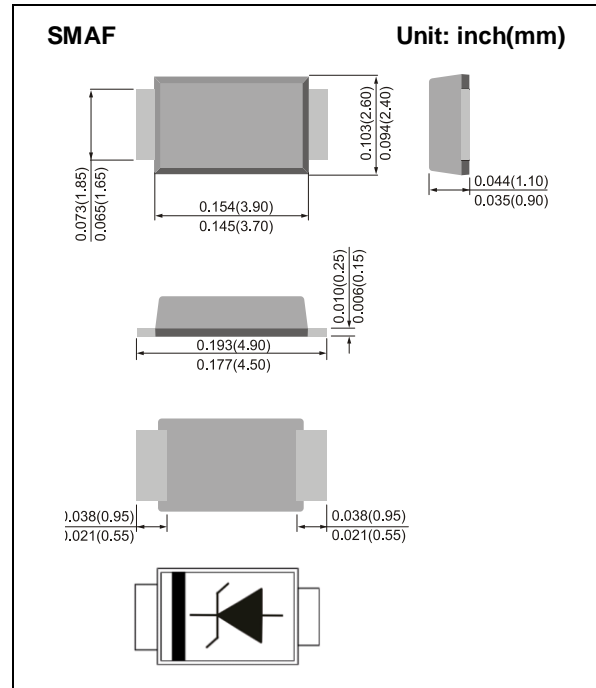
### Features

- 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 RoHS2.0  
(2011/65/EU & 2015/865/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: 0.0011 ounces, 0.0328 grams

### Maximum Ratings



PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation( $t_p=10/1000\mu s$ ) <sup>(NOTE 1,2)</sup>	$P_{PP}$	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 <sup>(NOTE 1, Fig.2)</sup>	$I_{PPM}$	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 <sup>(NOTE 3)</sup>	$R_{\theta JA}$	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 5mm<sup>2</sup> 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	$\mu A$	V	A	
P6AF3.3A	3.3	5.2	6	10	100	8	75	FKCS
P6AF5.0A	5	6.4	7	10	50	9.2	65.2	FKES
P6AF6.0A	6	6.67	7.37	10	50	10.3	58.3	FKGS
P6AF6.5A	6.5	7.22	7.98	10	40	11.2	53.6	FKKS
P6AF7.0A	7	7.78	8.6	10	40	12	50	FKMS
P6AF7.5A	7.5	8.33	9.21	1	30	12.9	46.5	FKPS
P6AF8.0A	8	8.89	9.83	1	5	13.6	44.1	FKRS
P6AF8.5A	8.5	9.44	10.4	1	5	14.4	41.7	FKTS
P6AF9.0A	9	10	11.1	1	0.5	15.4	39	FKVS
P6AF10A	10	11.1	12.3	1	0.5	17	35.3	FKXS
P6AF11A	11	12.2	13.5	1	0.5	18.2	33	FKZS
P6AF12A	12	13.3	14.7	1	0.5	19.9	30.2	FLFS
P6AF13A	13	14.4	15.9	1	0.1	21.5	27.9	FLGS
P6AF14A	14	15.6	17.2	1	0.1	23.2	25.9	FLKS
P6AF15A	15	16.7	18.5	1	0.1	24.4	24.6	FLMS
P6AF16A	16	17.8	19.7	1	0.1	26	23.1	FLPS
P6AF17A	17	18.9	20.9	1	0.1	27.6	21.7	FLRS
P6AF18A	18	20	22.1	1	0.1	29.2	20.5	FLTS
P6AF20A	20	22.2	24.5	1	0.1	32.4	18.5	FLVS
P6AF22A	22	24.4	26.9	1	0.1	35.5	16.9	FLXS
P6AF24A	24	26.7	29.5	1	0.1	38.9	15.4	FLZS
P6AF26A	26	28.9	31.9	1	0.1	42.1	14.3	FMES
P6AF28A	28	31.1	34.4	1	0.1	45.4	13.2	FMGS
P6AF30A	30	33.3	36.8	1	0.1	48.4	12.4	FMKS
P6AF33A	33	36.7	40.6	1	0.1	53.3	11.3	FMMS
P6AF36A	36	40	44.2	1	0.1	58.1	10.3	FMPS
P6AF40A	40	44.4	49.1	1	0.1	64.5	9.3	FMRS
P6AF43A	43	47.8	52.8	1	0.1	69.4	8.6	FMTS
P6AF45A	45	50	55.3	1	0.1	72.7	8.3	FMVS
P6AF48A	48	53.3	58.9	1	0.1	77.4	7.8	FMXS
P6AF51A	51	56.7	62.7	1	0.1	82.4	7.3	FMZS
P6AF54A	54	60	66.3	1	0.1	87.1	6.9	FNES
P6AF58A	58	64.4	71.2	1	0.1	93.6	6.4	FNGS
P6AF60A	60	66.7	73.7	1	0.1	96.8	6.2	FNKS
P6AF64A	64	71.1	78.6	1	0.1	103	5.8	FNMS



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## TYPICAL CHARACTERISTIC CURVES

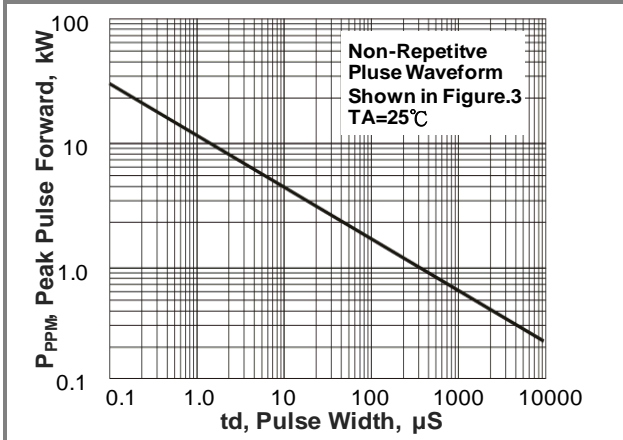


Fig.1 Peak Pulse Power Rating Curve

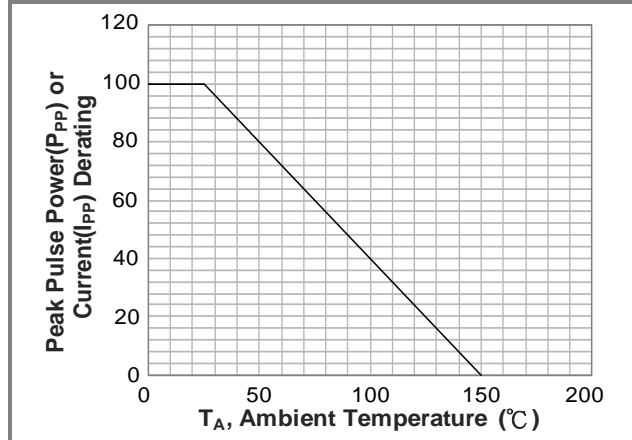


Fig.2 Derating Curve

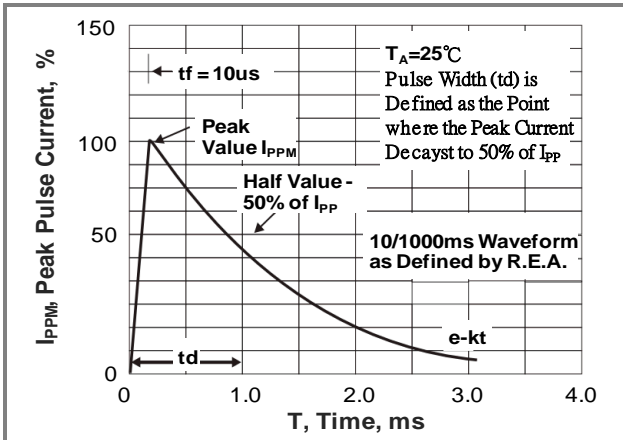


Fig.3 Pulse Waveform

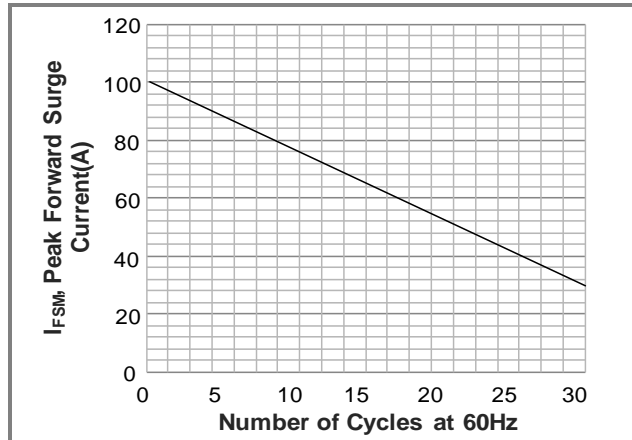


Fig.4 Maximum Non-repetitive Peak Forward Surge Current

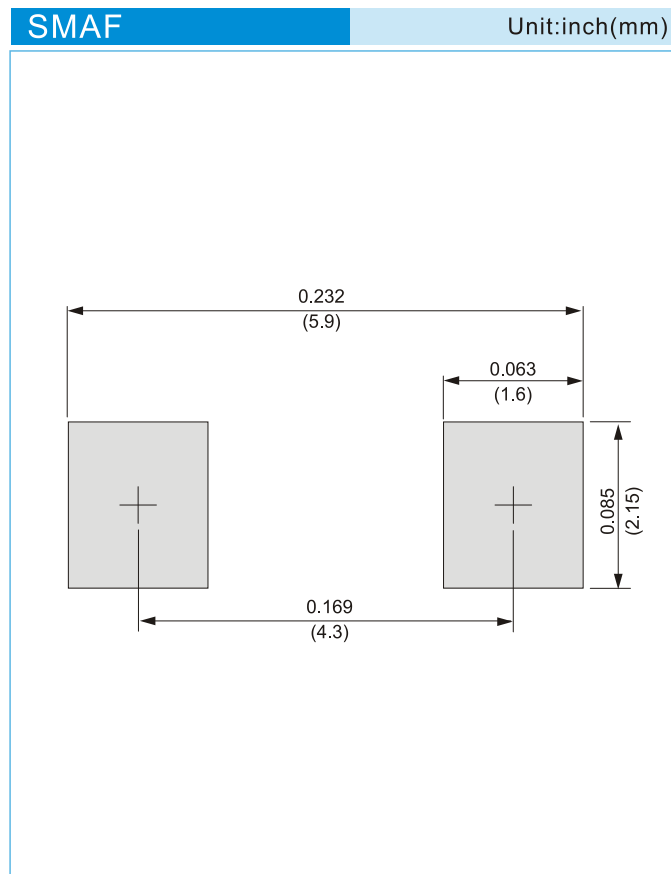


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## Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
P6AF3.3A_R1_00001	SMAF	3K pcs / 7" reel	FKCS	Halogen free
P6AF3.3A_R2_00001	SMAF	10K pcs / 13" reel	FKCS	Halogen free

## MOUNTING PAD LAYOUT





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