



P4SMAFJ SERIES

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR POWER 400 Watts

STAND-OFF VOLTAGE

8.5 to 170 Volts

SMAF

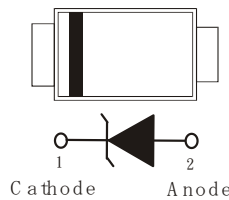
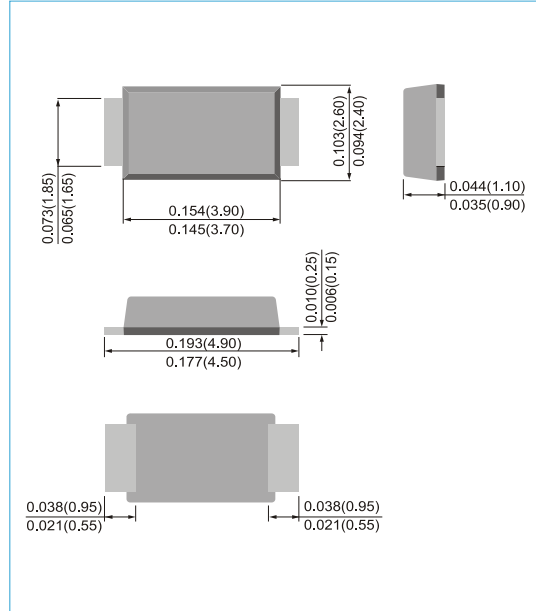
Unit : inch(mm)

FEATURES

- For surface mounted applications in order to optimize board space.
- Low profile package
- Glass passivated junction
- Low inductance
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering : 260°C /10 seconds at terminals
- Lead free in comply with EU RoHS 2002/95/EC directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SMAF, Plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0011 ounces, 0.0328grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on T _A =25°C (Note 1,2,4, Fig1)	P _{PPM}	400	W
Peak Forward Surge Current (Note 3, Fig 5)	I _{FSM}	40	A
Peak Pulse Current on 10/1000 us waveform (Note 1, Fig 2)	I _{PPM}	see Table 1	A
Typical Junction capacitance at V _R =4V, f=1MHz	C _J	390	pF
ESD Voltage per IEC6100-4-2	Contact Air V _{ESD} V _{ESD}	+8 -15	kV
Typical Thermal Resistance Junction to Ambient(Note 2)	R _{θJA}	150	°C/W
Operating Junction Temperature and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above T_A = 25 °C per Fig. 2.
2. Mounted on FR-4 PCB single-sided copper, mini pad.
3. Peak Forward Surge Current:8.3ms single half sine-wave Superimposed on rated load (JEDEC method).
4. Peak pulse power waveform is 10/1000μS.



P4SMAFJ SERIES

Part Number	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Marking Code
	V _{RWM}	V _{BR} @ I _T		I _T	I _R @ V _{RWM}	V _C @ I _{PP}	I _{PP}	
		Min.	Max.					
400W Transient Voltage Suppressor								
P4SMAFJ8.5A	8.50	9.44	10.82	1	10	14.4	27.7	HT
P4SMAFJ9.0A	9	10	11.5	1	5	15.4	26	HV
P4SMAFJ10A	10	11.1	12.8	1	5	17	23.5	HX
P4SMAFJ11A	11	12.2	14	1	1	18.2	22	HZ
P4SMAFJ12A	12	13.3	15.3	1	1	19.9	20.1	IE
P4SMAFJ13A	13	14.4	16.5	1	1	21.5	18.6	IG
P4SMAFJ14A	14	15.6	17.9	1	1	23.2	17.2	IK
P4SMAFJ15A	15	16.7	19.2	1	1	24.4	16.4	IM
P4SMAFJ16A	16	17.8	20.5	1	1	26	15.3	IP
P4SMAFJ17A	17	18.9	21.7	1	1	27.6	14.5	IR
P4SMAFJ18A	18	20	23.3	1	1	29.2	13.7	IT
P4SMAFJ20A	20	22.2	25.5	1	1	32.4	12.3	IV
P4SMAFJ22A	22	24.4	28	1	1	35.5	11.2	IX
P4SMAFJ24A	24	26.7	30.7	1	1	38.9	10.3	IZ
P4SMAFJ26A	26	28.9	33.2	1	1	42.1	9.5	JE
P4SMAFJ28A	28	31.1	35.8	1	1	45.4	8.8	JG
P4SMAFJ30A	30	33.3	38.3	1	1	48.4	8.3	JK
P4SMAFJ33A	33	36.7	42.2	1	1	53.3	7.5	JM
P4SMAFJ36A	36	40	46	1	1	58.1	6.9	JP
P4SMAFJ40A	40	44.4	51.1	1	1	64.5	6.2	JR
P4SMAFJ43A	43	47.8	54.9	1	1	69.4	5.7	JT
P4SMAFJ45A	45	50	57.5	1	1	72.7	5.5	JV
P4SMAFJ48A	48	53.3	61.3	1	1	77.4	5.2	JX
P4SMAFJ51A	51	56.7	65.2	1	1	82.4	4.9	JZ
P4SMAFJ54A	54	60	69	1	1	87.1	4.6	RE
P4SMAFJ58A	58	64.4	74.1	1	1	93.6	4.3	RG
P4SMAFJ60A	60	66.7	76.7	1	1	96.8	4.1	RK
P4SMAFJ64A	64	71.1	81.8	1	1	103	3.9	RM
P4SMAFJ70A	70	77.8	89.5	1	1	113	3.5	RP
P4SMAFJ75A	75	83.3	95.8	1	1	121	3.3	RR
P4SMAFJ78A	78	86.7	99.7	1	1	126	2.2	RT
P4SMAFJ85A	85	94.4	108.2	1	1	137	2.9	RV
P4SMAFJ90A	90	100	115.5	1	1	146	2.7	RX
P4SMAFJ100A	100	111	128	1	1	162	2.5	RZ
P4SMAFJ110A	110	122	140.5	1	1	177	2.3	SE
P4SMAFJ120A	120	133	153	1	1	193	2	SG
P4SMAFJ130A	130	144	165.5	1	1	209	1.9	SK
P4SMAFJ150A	150	167	192.5	1	1	243	1.6	SM
P4SMAFJ160A	160	178	205	1	1	259	1.5	SP
P4SMAFJ170A	170	189	217.5	1	1	275	1.4	SR



P4SMAFJ SERIES

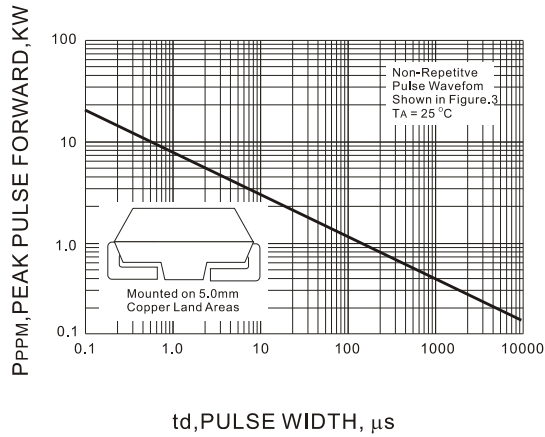


Fig.1 PEAK PULSE POWER RATING CURVE

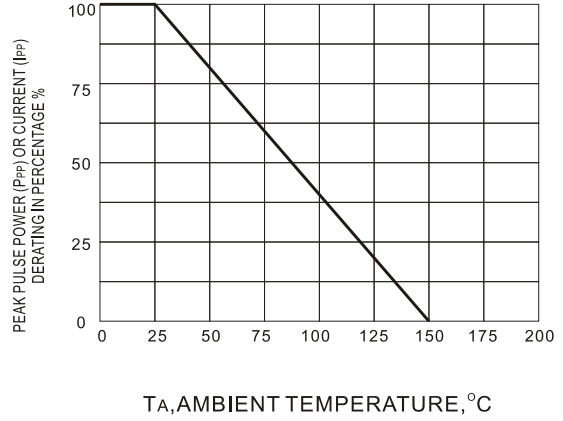


Fig.2 DERATING CURVE

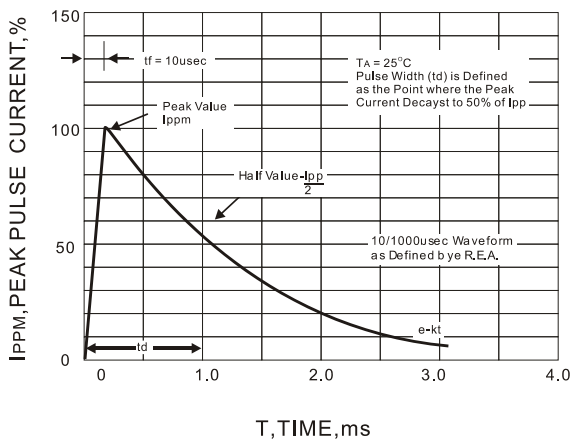


Fig.3 PULSE WAVEFORM

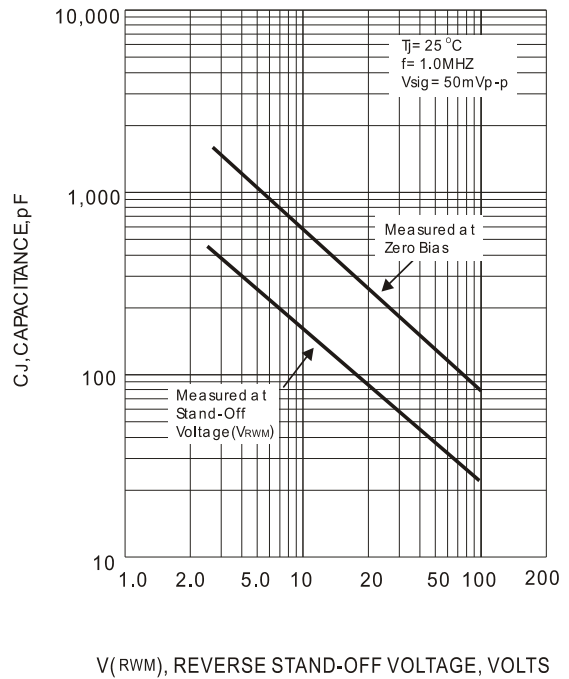


Fig.4 TYPICAL JUNCTION CAPACITANCE

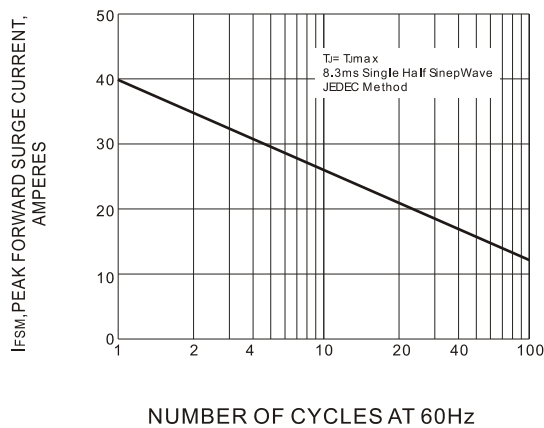
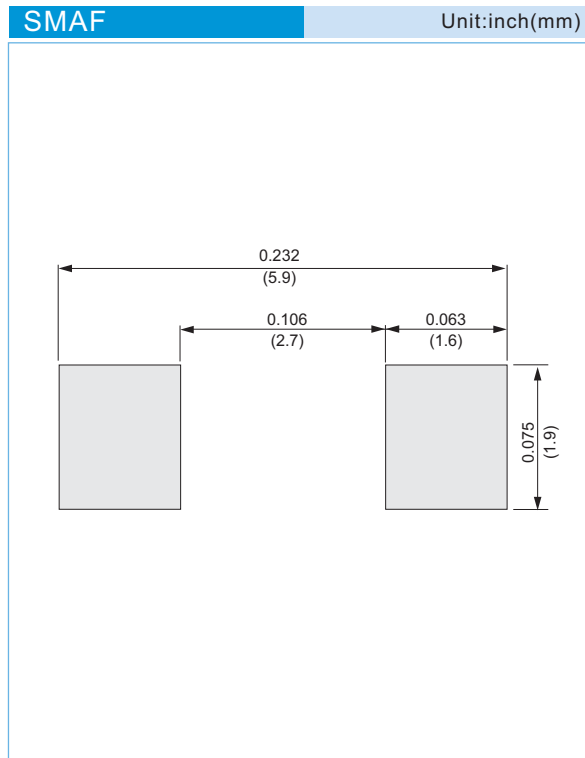


Fig.5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



P4SMAFJ SERIES

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 10K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel



P4SMAFJ SERIES

Part No_packing code_Version

P4SMAFJ8.5A_R1_00001

P4SMAFJ8.5A_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



P4SMAFJ SERIES

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.