



SMF3.0A SERIES

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE 3.0 to 170 Volts **CURRENT** 200Watts

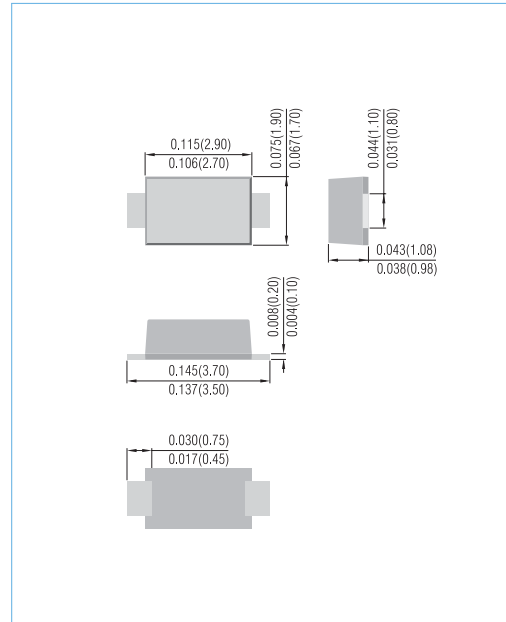
SOD-123FL Unit: inch (mm)

FEATURES

- For surface mounted applications in order to optimize board space.
- Low profile package
- Built-in strain relief
- Low inductance
- High temperature soldering : 260°C/10 seconds at terminals
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: JEDEC DO-219AB, Molded plastic over passivated junction.
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes positive end (cathode)
- Approx. Weight: 0.0168 gram
- Standard Packaging : 8mm tape (EIA-481)



DEVICES FOR BIPOLAR APPLICATIONS

Electrical characteristics apply in both directions

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Units
Peak Pulse Power Dissipation on $T_A = 25^\circ\text{C}$ (Notes 1,2,5, Fig.1)	P_{PPM}	200	Watts
Peak Forward Surge Current per (Note 3)	I_{FSM}	20	Amps
Peak Pulse Current on 10/1000s waveform(Note 1)Fig.2	I_{PPM}	see Table 1	Amps
Steady State Power Dissipation (NOTE 4)	$P_{M(AV)}$	1.0	Watts
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C
Thermal resistance	$R_{\theta JA}$	180	°C

NOTES :

- 1.Non-repetitive current pulse, per Fig.3 and derated above $T_A=25^\circ\text{C}$ per Fig.2 .
- 2.Mounted on 5.0mm² copper pads to each terminal.
- 3.8.3ms single half sine-wave, or equivalent square wave, duty cycle = 4 pulses per minutes maximum.
- 4.lead temperature at 75°C = T_L .
- 5.Peak pulse power waveform is 10/1000us .



SMF3.0A SERIES

Part Number	V _{RWM}	V _{BR} @ I _T			I _R @ V _{RWM}	V _C @ I _{PP}		Marking Code
		Min.	Max.	I _T		V	A	
	V	V	V	mA	μA			
200W Transient Voltage Suppressor								
SMF3.0A	3.0	4.1	4.5	10	400	8	25	HD
SMF5.0A	5	6.4	7	10	400	9.2	21.7	HE
SMF6.0A	6	6.7	7.4	10	400	10.3	19.4	HG
SMF6.5A	6.5	7.2	8	10	250	11.2	17.9	HK
SMF7.0A	7	7.8	8.6	10	100	12	16.7	HM
SMF7.5A	7.5	8.3	9.2	1	50	12.9	15.5	HP
SMF8.0A	8	8.9	9.8	1	25	13.6	14.7	HR
SMF8.5A	8.5	9.4	10.4	1	10	14.4	13.9	HT
SMF9.0A	9	10	11.1	1	5	15.4	13	HV
SMF10A	10	11.1	12.3	1	2.5	17	11.8	HX
SMF11A	11	12.2	13.5	1	2.5	18.2	11	HZ
SMF12A	12	13.3	14.7	1	2.5	19.9	10.1	IE
SMF13A	13	14.4	15.9	1	1	21.5	9.3	IG
SMF14A	14	15.6	17.2	1	1	23.2	8.6	IK
SMF15A	15	16.7	18.5	1	1	24.4	8.2	IM
SMF16A	16	17.8	19.7	1	1	26	7.7	IP
SMF17A	17	18.9	20.9	1	1	27.6	7.2	IR
SMF18A	18	20	22.1	1	1	29.2	6.8	IT
SMF20A	20	22.2	24.5	1	1	32.4	6.2	IV
SMF22A	22	24.4	26.9	1	1	35.5	5.6	IX
SMF24A	24	26.7	29.5	1	1	38.9	5.1	IZ
SMF26A	26	28.9	31.9	1	1	42.1	4.8	JE
SMF28A	28	31.1	34.4	1	1	45.4	4.4	JG
SMF30A	30	33.3	36.8	1	1	48.4	4.1	JK
SMF33A	33	36.7	40.6	1	1	53.3	3.8	JM
SMF36A	36	40	44.2	1	1	58.1	3.4	JP
SMF40A	40	44.4	49.1	1	1	64.5	3.1	JR
SMF43A	43	47.8	52.8	1	1	69.4	2.9	JT
SMF45A	45	50	55.3	1	1	72.7	2.8	JV
SMF48A	48	53.3	58.9	1	1	77.4	2.6	JX
SMF51A	51	56.7	62.7	1	1	82.4	2.4	JZ
SMF54A	54	60	66.3	1	1	87.1	2.3	RE
SMF58A	58	64.4	71.2	1	1	93.6	2.1	RG
SMF60A	60	66.7	73.7	1	1	96.8	1.8	RK
SMF64A	64	71.1	78.6	1	1	103	1.7	RM
SMF70A	70	77.8	86	1	1	113	1.5	RP
SMF75A	75	83.3	92.1	1	1	121	1.4	RR
SMF78A	78	86.7	95.8	1	1	126	1.4	RT
SMF85A	85	94.4	104	1	1	137	1.3	RV
SMF90A	90	100	111	1	1	146	1.2	RX
SMF100A	100	111	123	1	1	162	1.1	RZ
SMF110A	110	122	135	1	1	177	1	SE
SMF120A	120	133	147	1	1	193	0.9	SG
SMF130A	130	144	159	1	1	209	0.8	SK
SMF140A	150	167	185	1	1	243	0.7	SM
SMF160A	160	178	197	1	1	259	0.7	SP
SMF170A	170	189	209	1	1	275	0.6	SR



SMF3.0A SERIES

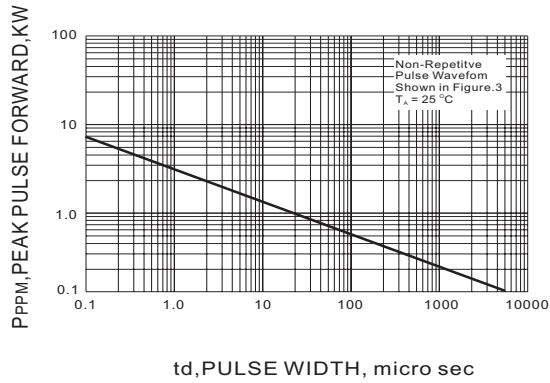


Fig.1 PEAK PULSE POWER RATING CURVE

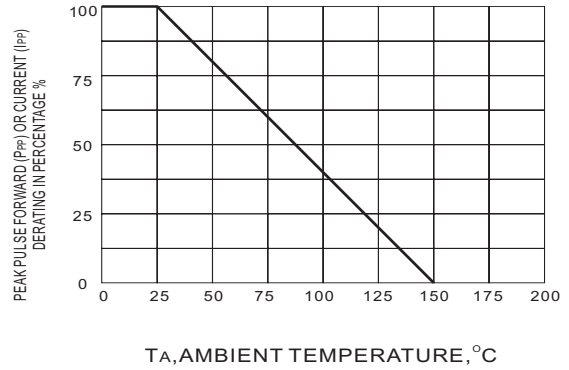


Fig.2 DERATING CURVE

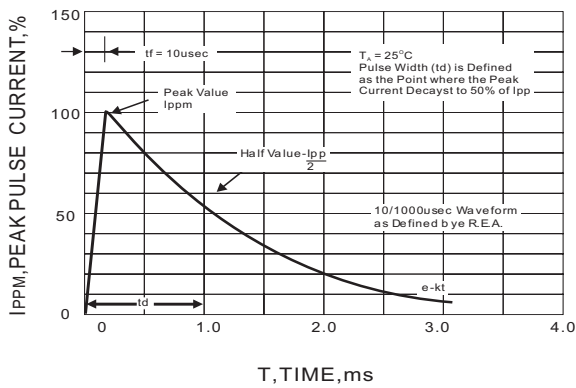


Fig.3 PULSE WAVEFORM

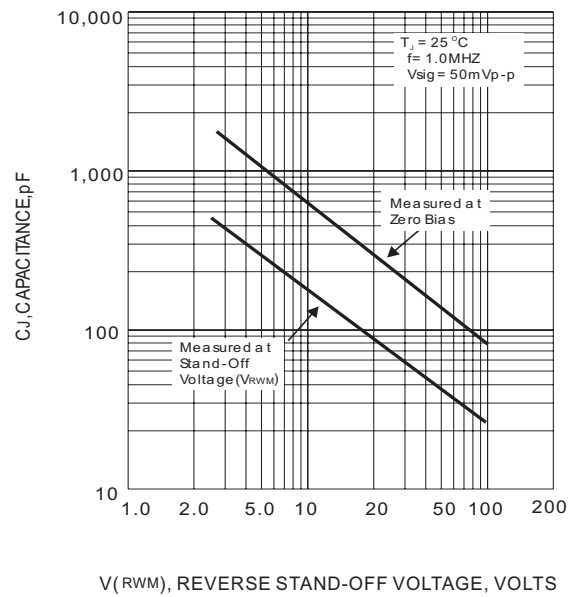


Fig.4 TYPICAL JUNCTION CAPACITANCE

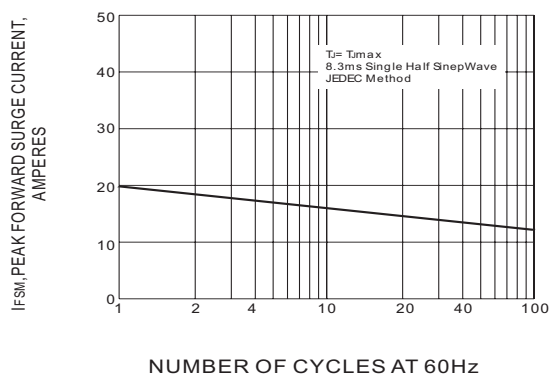


Fig.5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

PLEASE REFER THE TVS APPLICATION NOTE IN PANJIT WEBSITE

<http://www.panjit.com/protection-transient-voltage-suppressors.html>

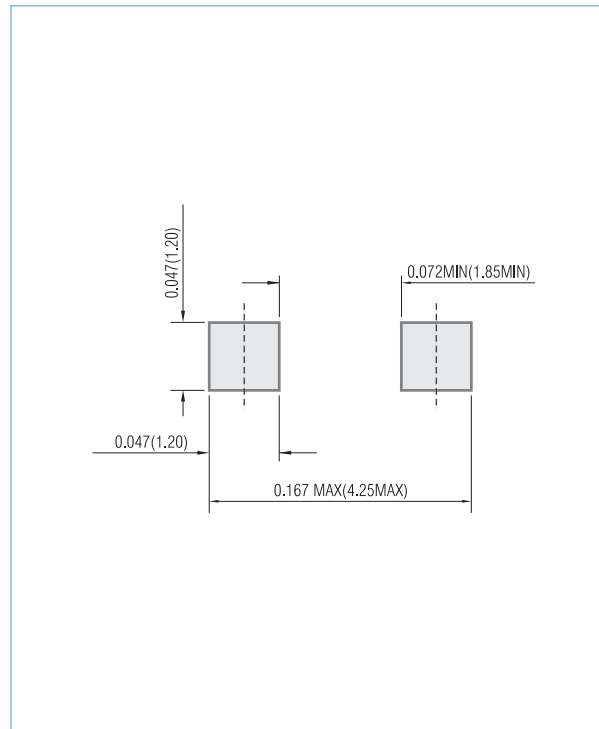


SMF3.0A SERIES

MOUNTING PAD LAYOUT

SOD-123FL

Unit: inch (mm)



ORDER INFORMATION

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

LEGAL STATEMENT

Copyright PanJit International, Inc 2007

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.