

SMF5.0A-AU SERIES

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE 5 to 70 Volt **POWER** 200 Watt

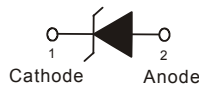
SOD-123FL Unit : inch(mm)

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
- ESD IEC-61000-4-2 Air ± 30 kV, Contact ± 30 kV
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: SOD-123FL, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0006 ounces, 0.0173 grams
- Standard Packaging: 8mm tape (EIA-481)



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

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on T _A = 25°C (Notes 1,2,5, Fig.1)	P _{PPM}	200	W
Peak Forward Surge Current per (Notes 3)	I _{FSM}	20	A
Peak Pulse Current on tp=10/1000μs waveform (Notes 1) Fig.2	I _{PPM}	see Table 1	A
Steady State Power Dissipation (Notes 4)	P _{M(AV)}	1	W
ESD IEC-61000-4-2 (Air) ESD IEC-61000-4-2 (Contact)	V _{ESD}	± 30 ± 30	kV
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C
Typical thermal resistance	R _{θJA}	180	°C

NOTES :

- 1.Non-repetitive current pulse, per Fig.3 and derated above T_A=25°C per Fig.2 .
- 2.Mounted on 5mm² 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 tp=10/1000μs.
- 6.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 operating voltage level.



SMF5.0A-AU SERIES

Part Number	V _{RWM} (Note 6)	V _{BR} @ I _T			I _R @ V _{RWM}	V _C @ I _{PP}		Marking Code
		Min.	Max.	I _T				
	V	V	V	mA	μA	V	A	
200W Transient Voltage Suppressor								
SMF5.0A-AU	5	6.4	7	10	200	9.2	21.7	HE
SMF6.0A-AU	6	6.7	7.4	10	100	10.3	19.4	HG
SMF6.5A-AU	6.5	7.2	8	10	75	11.2	17.9	HK
SMF7.0A-AU	7	7.8	8.6	10	50	12	16.7	HM
SMF7.5A-AU	7.5	8.3	9.2	1	50	12.9	15.5	HP
SMF8.0A-AU	8	8.9	9.8	1	25	13.6	14.7	HR
SMF8.5A-AU	8.5	9.4	10.4	1	10	14.4	13.9	HT
SMF9.0A-AU	9	10	11.1	1	5	15.4	13	HV
SMF10A-AU	10	11.1	12.3	1	2.5	17	11.8	HX
SMF11A-AU	11	12.2	13.5	1	2.5	18.2	11	HZ
SMF12A-AU	12	13.3	14.7	1	2.5	19.9	10.1	IE
SMF13A-AU	13	14.4	15.9	1	1	21.5	9.3	IG
SMF14A-AU	14	15.6	17.2	1	1	23.2	8.6	IK
SMF15A-AU	15	16.7	18.5	1	1	24.4	8.2	IM
SMF16A-AU	16	17.8	19.7	1	1	26	7.7	IP
SMF17A-AU	17	18.9	20.9	1	1	27.6	7.2	IR
SMF18A-AU	18	20	22.1	1	1	29.2	6.8	IT
SMF20A-AU	20	22.2	24.5	1	1	32.4	6.2	IV
SMF22A-AU	22	24.4	26.9	1	1	35.5	5.6	IX
SMF24A-AU	24	26.7	29.5	1	1	38.9	5.1	IZ
SMF26A-AU	26	28.9	31.9	1	1	42.1	4.8	JE
SMF28A-AU	28	31.1	34.4	1	1	45.4	4.4	JG
SMF30A-AU	30	33.3	36.8	1	1	48.4	4.1	JK
SMF33A-AU	33	36.7	40.6	1	1	53.3	3.8	JM
SMF36A-AU	36	40	44.2	1	1	58.1	3.4	JP
SMF40A-AU	40	44.4	49.1	1	1	64.5	3.1	JR
SMF43A-AU	43	47.8	52.8	1	1	69.4	2.9	JT
SMF45A-AU	45	50	55.3	1	1	72.7	2.8	JV
SMF48A-AU	48	53.3	58.9	1	1	77.4	2.6	JX
SMF51A-AU	51	56.7	62.7	1	1	82.4	2.4	JZ
SMF54A-AU	54	60	66.3	1	1	87.1	2.3	RE
SMF58A-AU	58	64.4	71.2	1	1	93.6	2.1	RG
SMF60A-AU	60	66.7	73.7	1	1	96.8	1.8	RK
SMF64A-AU	64	71.1	78.6	1	1	103	1.7	RM
SMF70A-AU	70	77.8	86	1	1	113	1.5	RP

SMF5.0A-AU SERIES

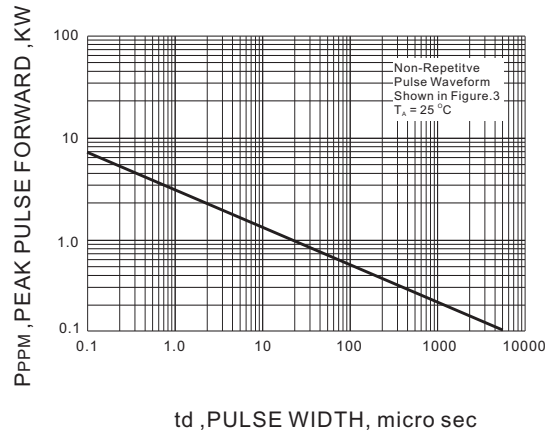


Fig.1 PEAK PULSE POWER RATING CURVE

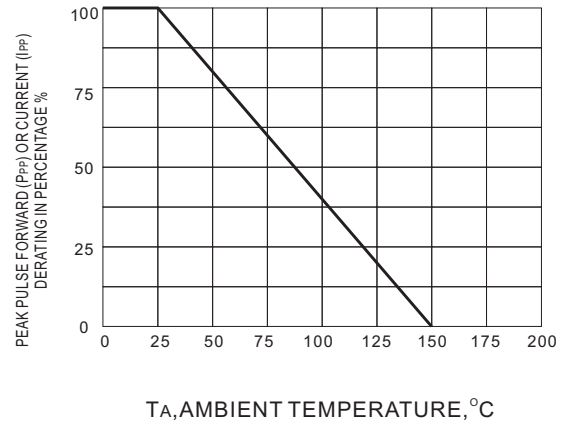


Fig.2 DERATING CURVE

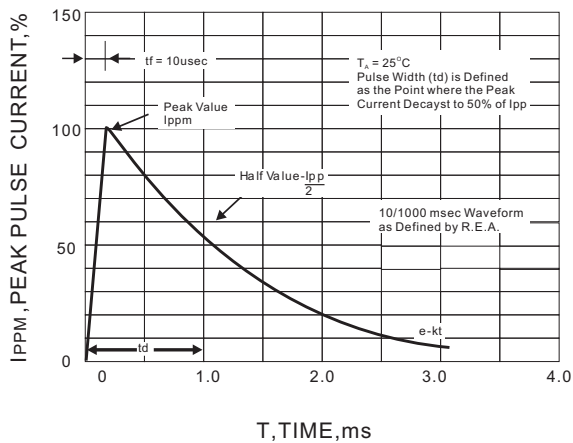


Fig.3 PULSE WAVEFORM

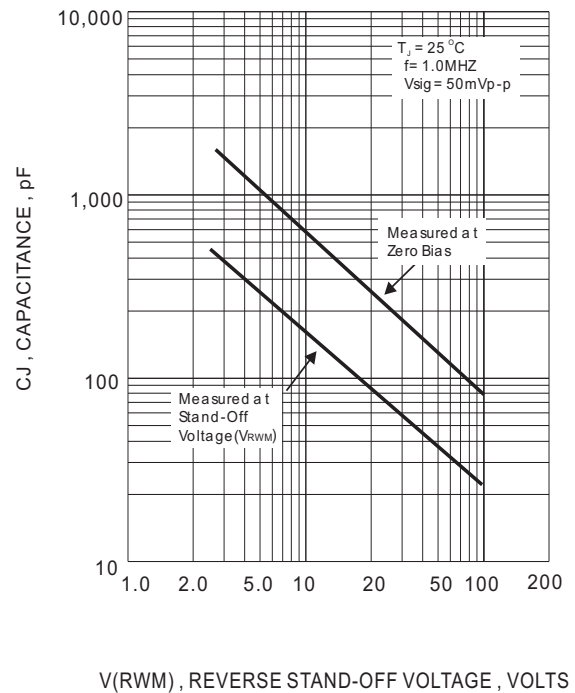


Fig.4 TYPICAL JUNCTION CAPACITANCE

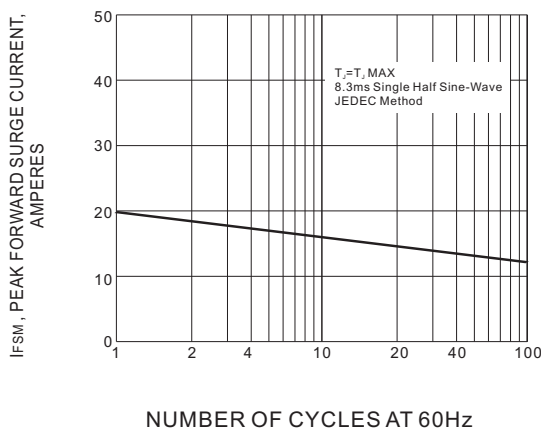


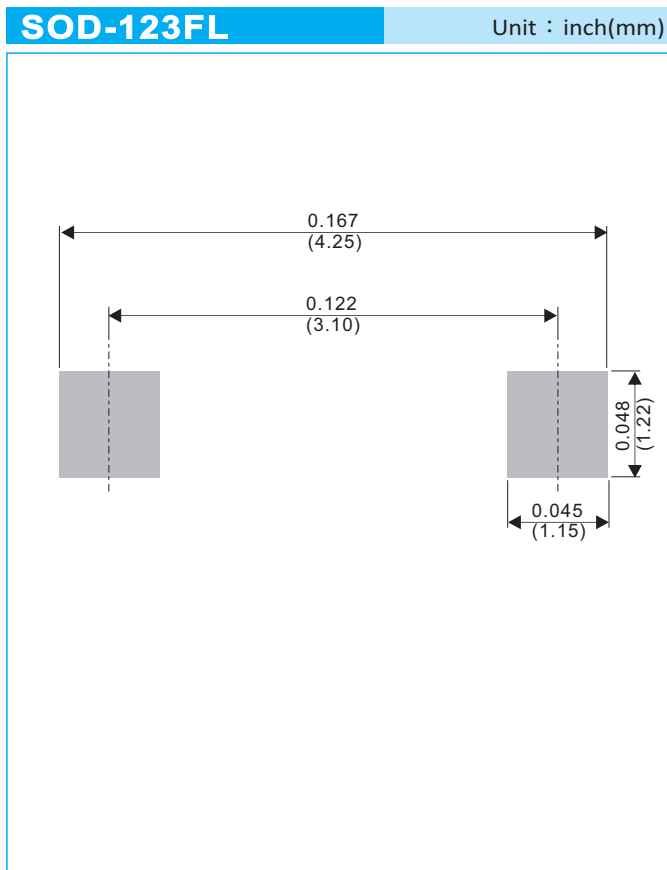
Fig.5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

SMF5.0A-AU SERIES

PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
SMF5.0A-AU_R1_000A1	SOD-123FL	3K pcs / 7" reel	HE	Halogen free
SMF5.0A-AU_R1_000A1	SOD-123FL	10K pcs / 13" reel	HE	Halogen free

MOUNTING PAD LAYOUT





SMF5.0A-AU 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 relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, 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.