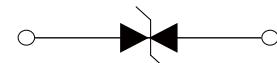


FEATURES

- | Low profile package
- | Ideal for automated placement
- | 200 Watt peak pulse power capability with a 10/1000 μ s waveform
- | For surface mounted applications to optimize board space
- | Excellent clamping capability
- | Very fast response time
- | Low incremental surge resistance



SOD-123FL



Schematic Symbol

APPLICATIONS

- | Power supply protection
- | Automotive application
- | Industrial application
- | Power management

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS ($T_A=25^\circ C$)

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000 μ s waveform (Note1)	P_{PPM}	200	Watts
Steady State Power Dissipation at $T_A=50^\circ C$	P_D	1.0	Watts

Notes :1. Non-repetitive current pulse, $T_A=25^\circ C$.

2. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle = 4 pulses per minutes maximum

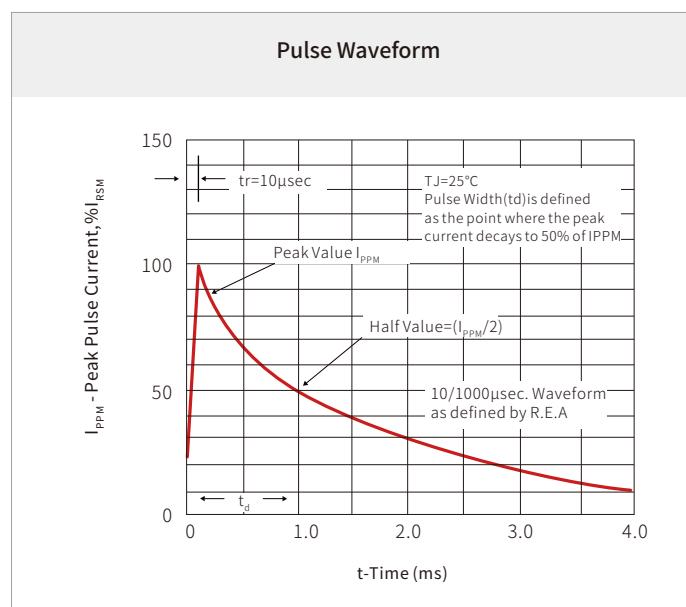
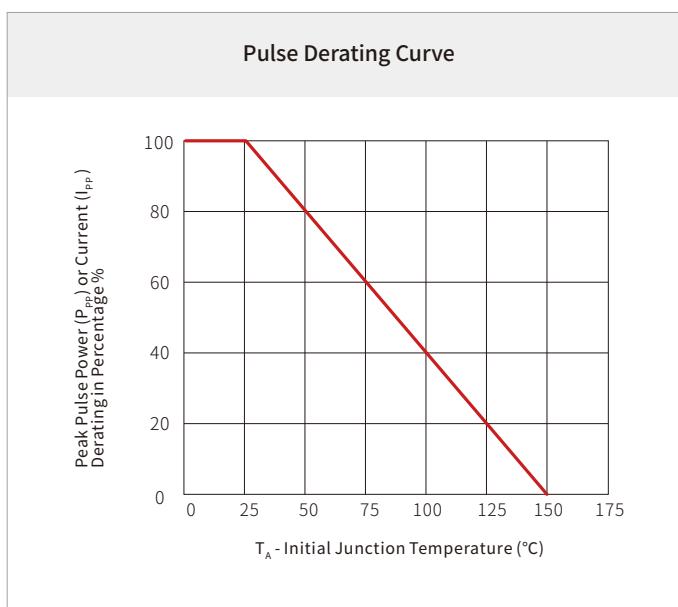
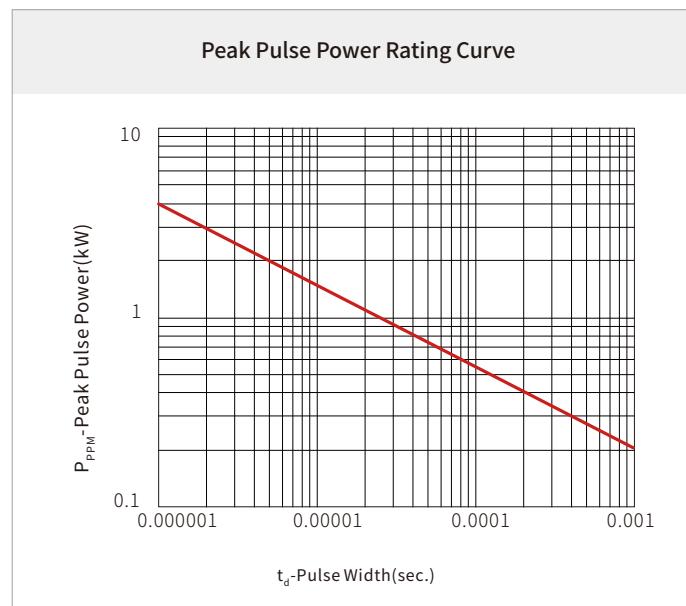
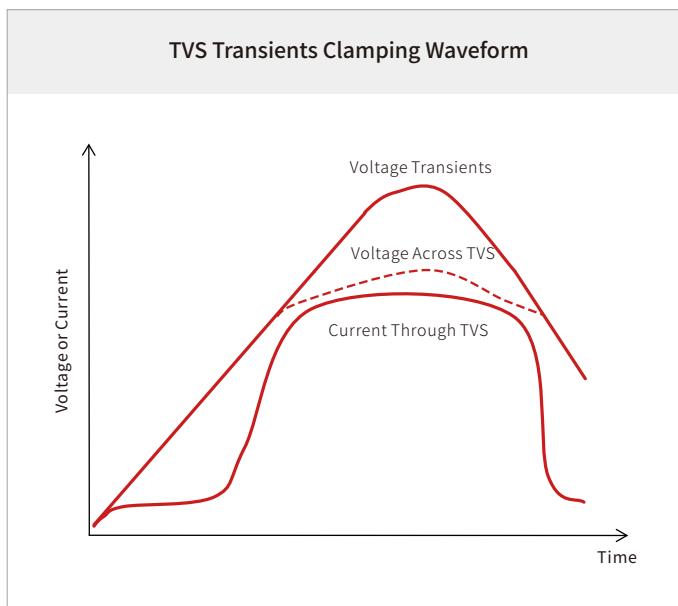
THERMAL CONSIDERATIONS

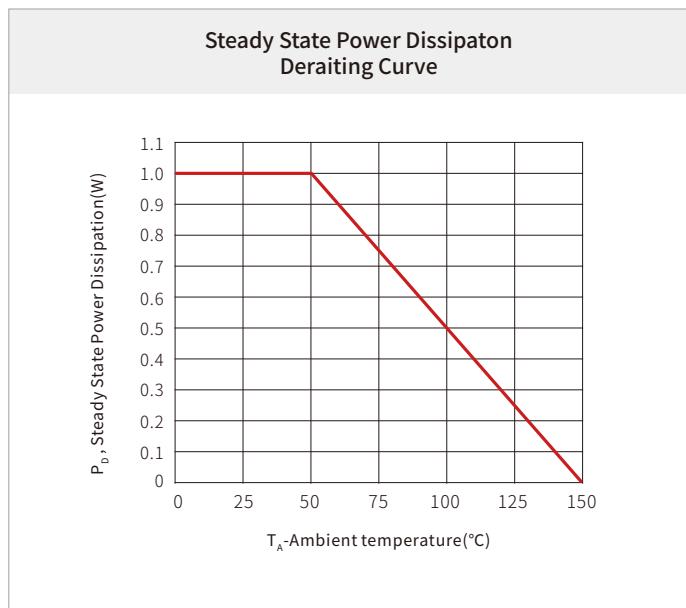
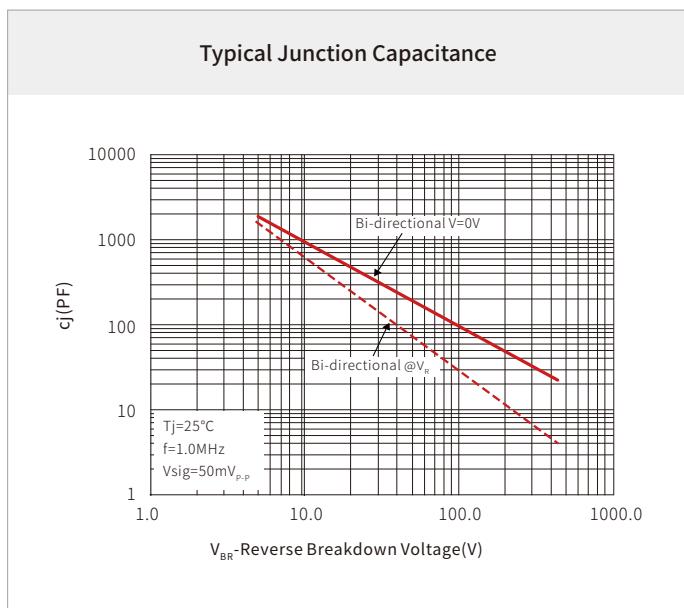
Parameter	Symbol	Value	Unit
Operating junction Temperature	T_J	-55 to +150	°C
Storage Temperature Range	T_S	-55 to +150	°C
Junction to Ambient on Printed circuit	$R_{\theta JA}$	220	°C/W

ELECTRICAL CHARACTERISTICS

Part Number	Device Marking Code	Reverse Stand-off Voltage	Breakdown Voltage Min. @ I_T	Breakdown Voltage Max. @ I_T	Test Current	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current	Maximum Reverse Leakage @ V_{RWM}
		V_{RWM} (V)	V_{BR} (V)	V_{BR} (V)		I_T (mA)	V_c (V)	I_{PP} (A)
SVF20B48	HX	48.0	53.3	58.9	1.0	77.4	2.6	1.0

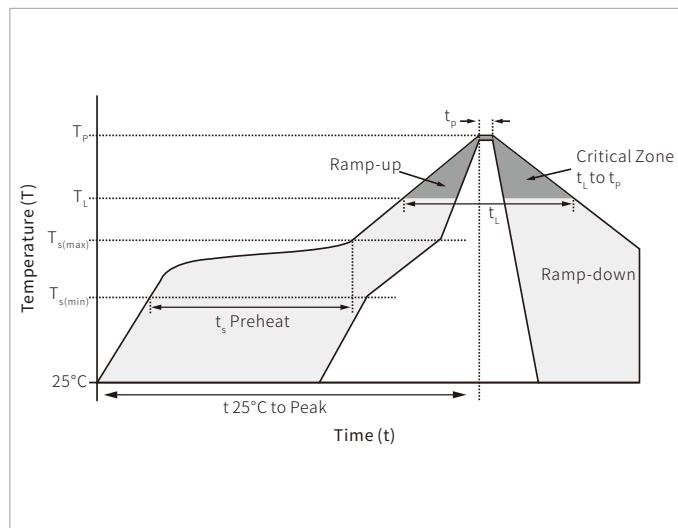
CHARACTERISTIC CURVES



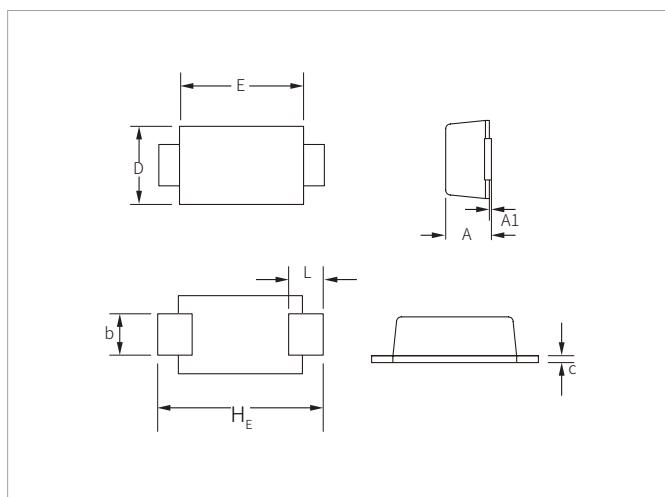


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Reflow	Average ramp up rate (Liquidus Temp (T_L) to peak)	3°C/second max
	$T_{s(max)}$ to T_L - Ramp-up Rate	3°C/second max
	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
	Peak Temperature (T_p)	260°C
	Time within 5°C of actual peak Temperature (t_p)	20 – 40 seconds
	Ramp-down Rate	6°C/second max
	Time 25°C to peak Temperature (T_p)	8 minutes max.
	Do not exceed	260°C

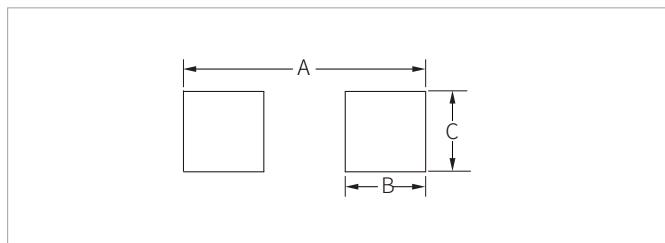


SOD-123FL PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.95	1.45	0.037	0.057
A1	0.00	0.10	0.000	0.004
b	0.70	1.20	0.028	0.047
c	0.05	0.30	0.002	0.012
D	1.50	2.00	0.059	0.079
E	2.50	3.10	0.098	0.122
L	0.35	0.90	0.014	0.035
H _E	3.40	3.90	0.134	0.154

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
A	4.20	0.165
B	1.50	0.059
C	1.20	0.047

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SVF20B48	SOD-123FL	3000PCS	7"

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By QR Code

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Wechat

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