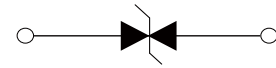


FEATURES

- | 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°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 _L = 75°C	P _D	0.4	Watts

Notes : 1. Non-repetitive current pulse, T_A = 25°C.
 2. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle = 4 pulses per minutes maximum

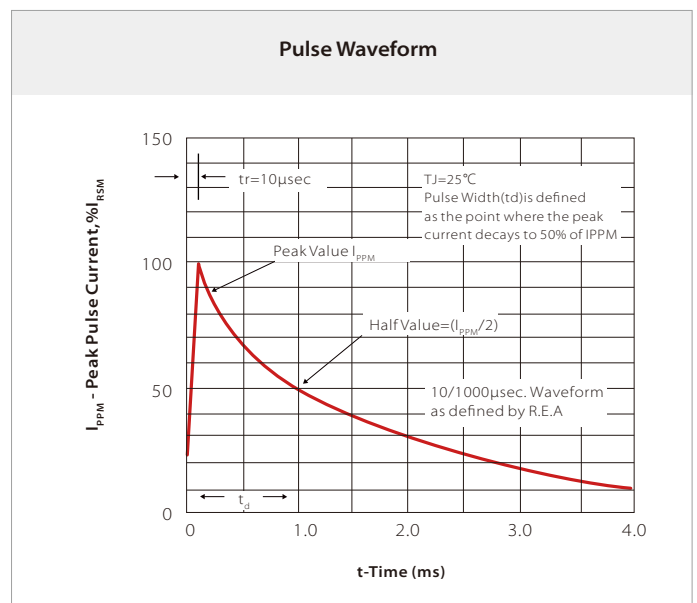
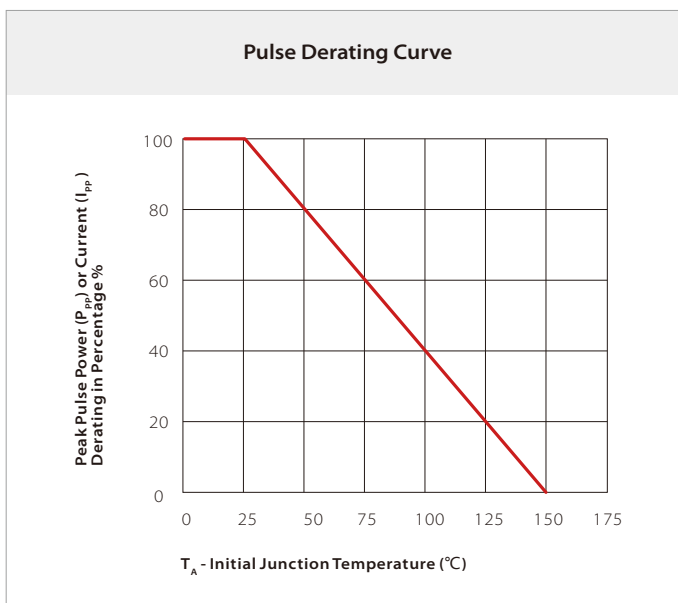
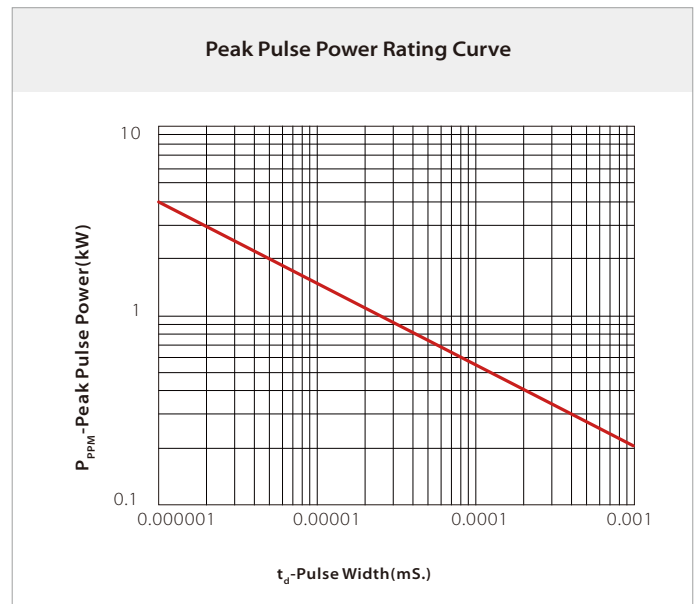
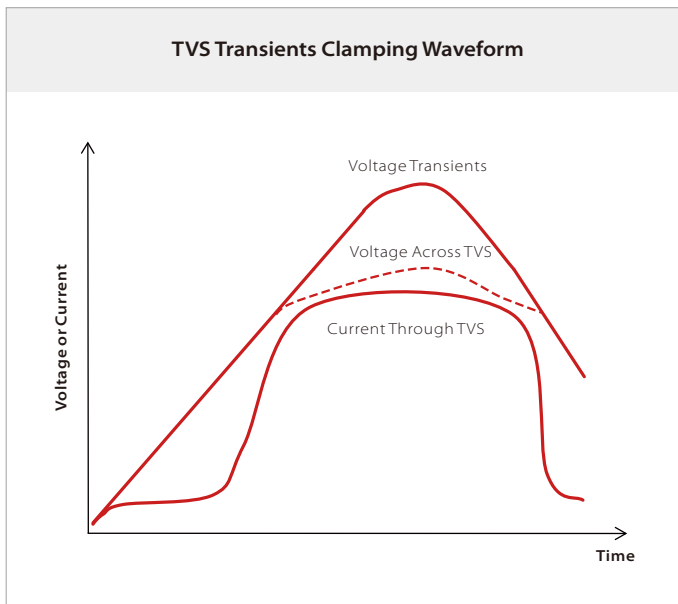
THERMAL CONSIDERATIONS

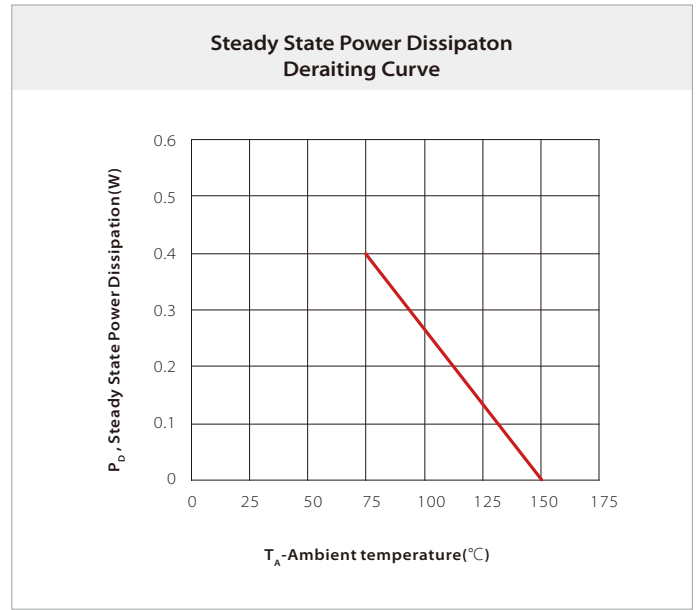
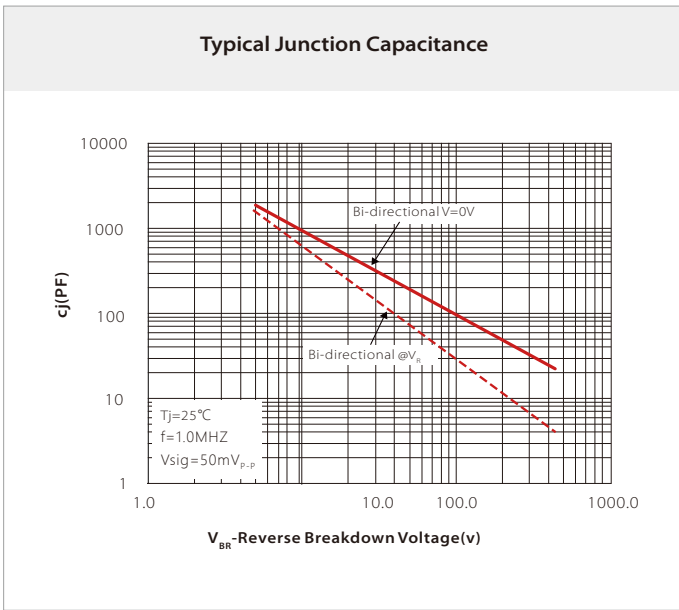
Parameter	Symbol	Value	Unit
Operating junction Temperature	T _J	-55 to +150	°C
Storage Temperature Range	T _S	-55 to +150	°C
Junction to Ambient on Printed circuit	R _{θJA}	220	°C/W

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)	I_R (uA)
SVF20B17	GR	17.0	18.9	20.9	1.0	27.6	7.2	1.0

CHARACTERISTIC CURVES



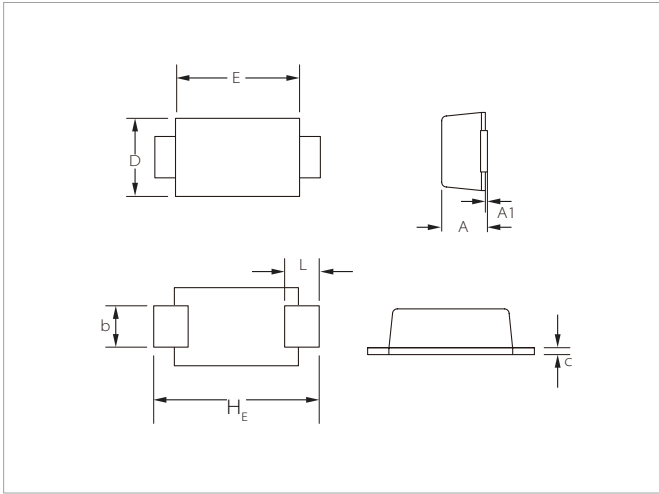


SOLDERING PARAMETERS

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

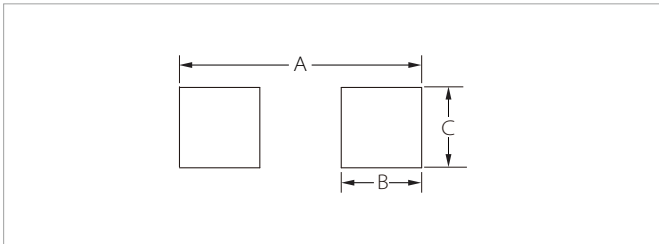


SOD-123FL PACKAGE INFORMATION



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	2.90	0.098	0.114
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
SVF20B17	SOD-123FL	3000PCS	7"

Headquarters

No.3387 Shendu Road Pujiang
I&E Park
Minhang Shanghai China
201000

Hotline

400-021-5756

Web

<https://www.semiware.com>

Sales Center

Tel: 86-21-3463-7458
Email: sales18@semiware.com

Customer Service

Tel: 86-21-5484-1001
Email: sales17@semiware.com

Technical Support

Tel: 86-21-3463-7654
Email: fae01@semiware.com

Complaint & Suggestions

Tel: 86-21-3463-7172
Ext: 8868
Email: cs03@semiware.com

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