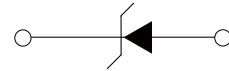


FEATURES

- | For Surface Mounted Applications
- | Built-in Strain Relief, Ideal For Automated Placement
- | Low Reverse Leakage
- | High Forward Surge Current Capability
- | Terminals



SOD-123FL



Schematic Symbol

MECHANICAL DATA

- | Case : Molded Plastic Body
- | Polarity : Polarity Symbol Marking On Body
- | Mounting Position : Any

APPROVALS

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

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

Parameter	Symbol	SS 22D	SS 23D	SS 24D	SS 25D	SS 26D	SS 27D	SS 28D	SS 29D	SS 210D	SS 215D	SS 220D	Unit	
Marking		D22	D23	D24	D25	D26	D27	D28	D29	D210	D215	D220		
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	70	80	90	100	150	200	V	
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	49	56	63	70	105	140	V	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	70	80	90	100	150	200	V	
Maximum Average Forward Rectified Current at $T_L = 100^\circ\text{C}$	$I_{F(AV)}$	2.0											A	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load	I_{FSM}	40											A	
Maximum Instantaneous Forward Voltage at 2.0A	V_F	0.55			0.70			0.85			0.95			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_A = 25^\circ\text{C}$					$T_A = 100^\circ\text{C}$							
		0.5					0.10					mA		
Typical Thermal Resistance	$R_{\theta J-A}$	70 ⁽¹⁾											$^\circ\text{C/W}$	
	$R_{\theta J-L}$	20 ⁽¹⁾											$^\circ\text{C/W}$	
Operating Junction Temperature Range	T_J	-55 to +125						-55 to +150						$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150											$^\circ\text{C}$	

Note:

- (1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

CHARACTERISTIC CURVES

Fig. 1- Derating Curve Output Rectified Current

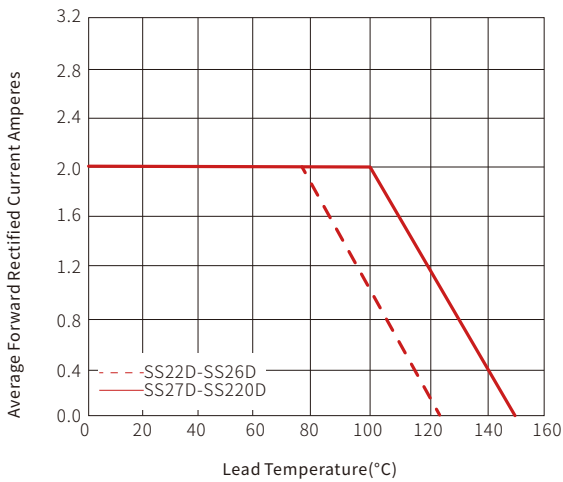


Fig. 2-Maximum Non-repetitive Peak Forward Surge Current Perleg

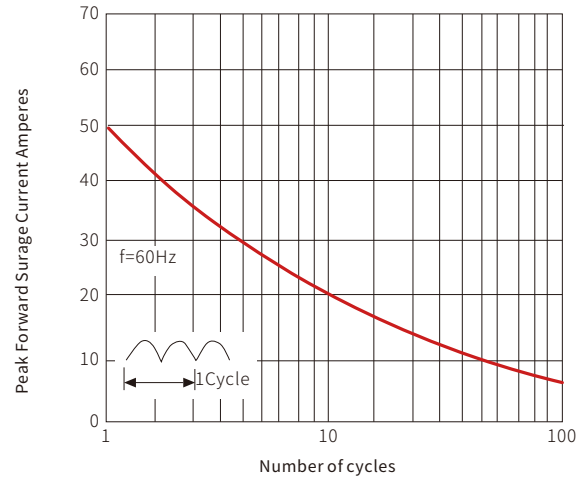


Fig. 3-Typical Forward Voltage Characteristics

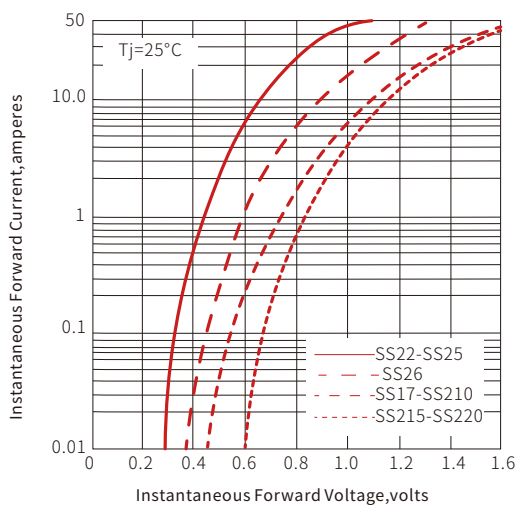
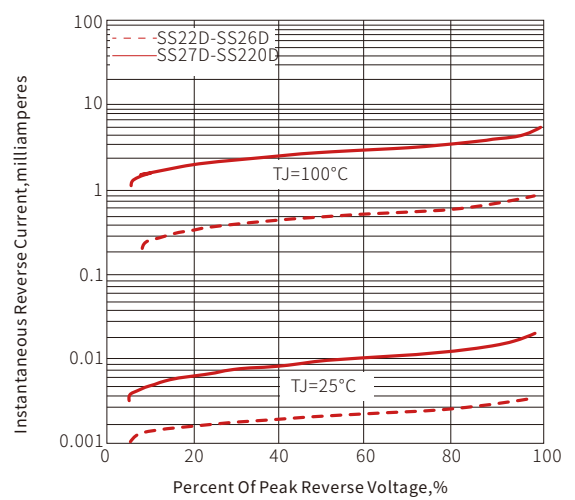
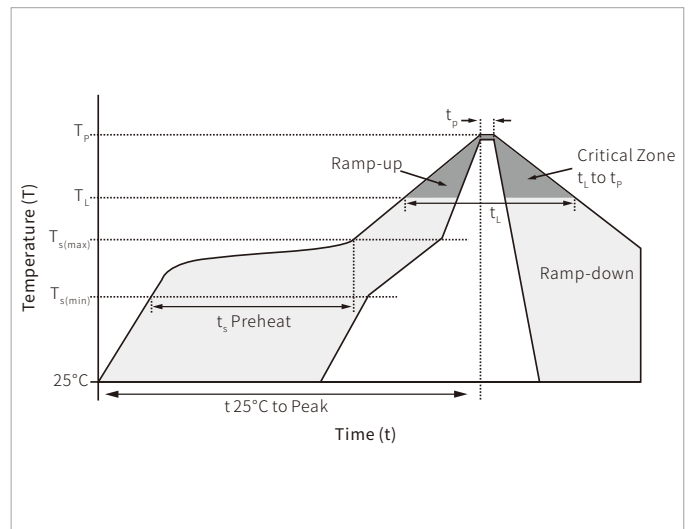


Fig. 4-Typical Reverse Leakage Characteristics

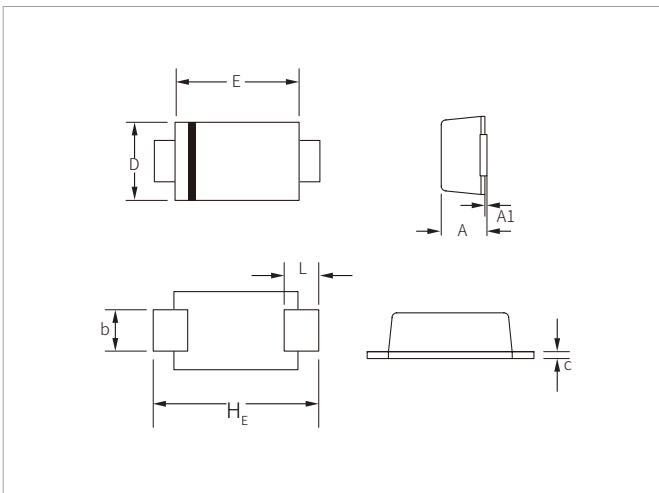


SOLDERING PARAMETERS

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
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
Reflow	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

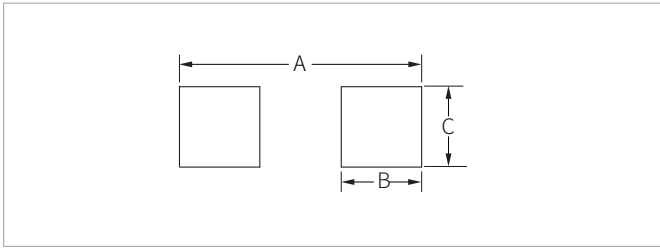


SOD-123FL PACKAGE INFORMATION



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	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
SS22D-SS220D	SOD-123FL	3000PCS	7"

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By QR Code

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