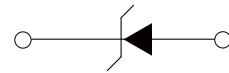


## FEATURES

- | 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

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

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

Parameter	Symbol	SS32D	SS34D	SS36D	SS38D	SS310D	SS315D	SS320D	Unit
Marking		D32	D34	D36	D38	D310	D315	D320	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	40	60	80	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	14	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	20	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current at $T_L=100^{\circ}\text{C}$	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load	$I_{FSM}$	70							A
Maximum Instantaneous Forward Voltage at 3.0A	$V_F$	0.55	0.70	0.85	0.95				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}\text{C}$	0.2			0.05				mA
	$T_A=100^{\circ}\text{C}$	20			5				mA
Typical Thermal Resistance	$R_{\theta JA}$	85							$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	$T_J$	-55 to +125			-55 to +150				$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^{\circ}\text{C}$

# CHARACTERISTIC CURVES

Fig. 1- Derating Curve Output Rectified Current

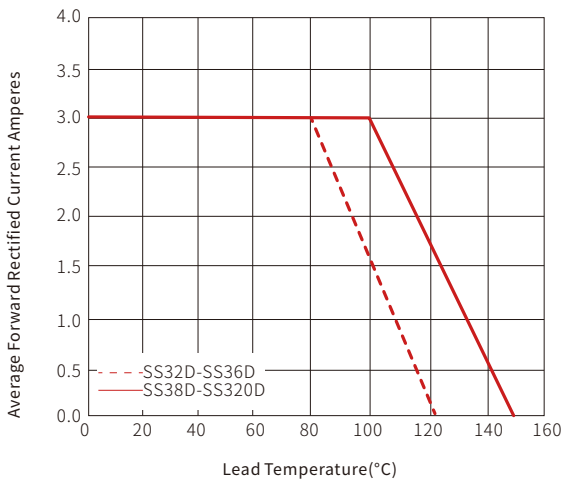


Fig. 2-Maximum Non-repetitive Peak Forward Surge Current Perleg

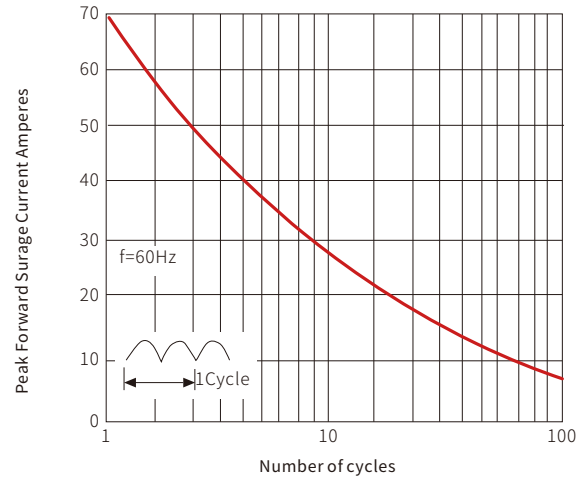


Fig. 3-Typical Forward Voltage Characteristics

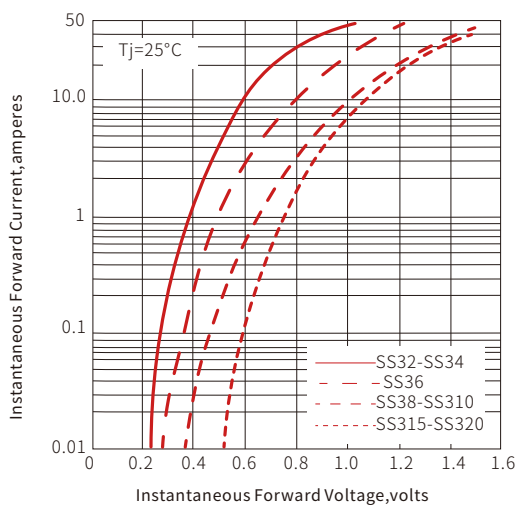
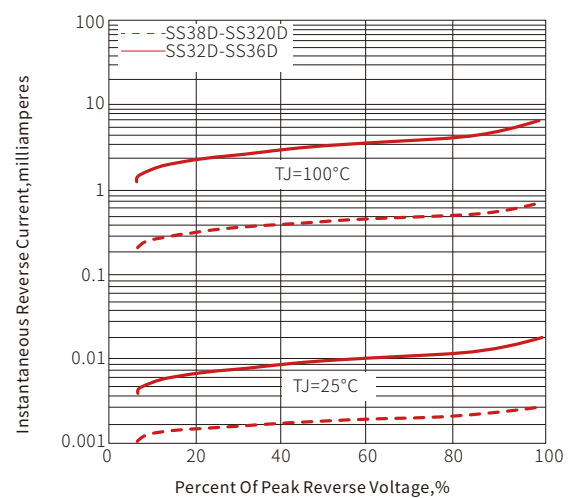
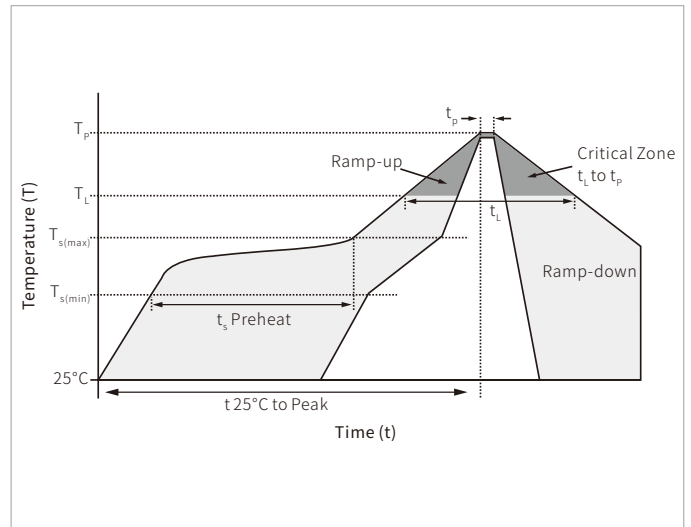


Fig. 4-Typical Reverse Leakage Characteristics

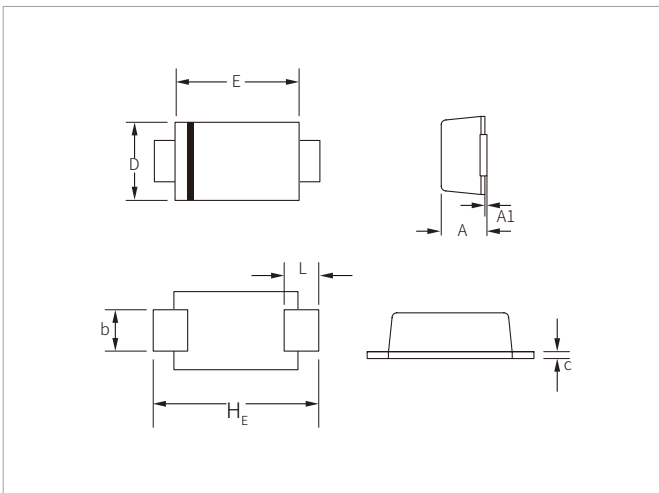


## SOLDERING PARAMETERS

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

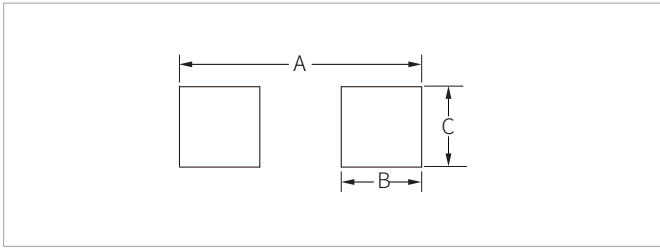


## SOD-123FL PACKAGE INFORMATION



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 <sub>E</sub>	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
SS32D-SS320D	SOD-123FL	3000PCS	7"

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