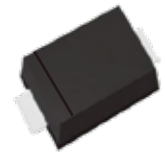
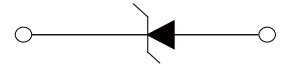


FEATURES

- | For surface mounted applications
- | Low profile package
- | Glass Passivated Chip Junction
- | Ideal for automated placement



SOD-123FL



Schematic Symbol

MECHANICAL DATA

- | Case: SOD-123FL
- | Terminals: Solderable per MIL-STD-750, Method 2026

APPROVALS

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

MAXIMUM RATINGS AND CHARACTERISTICS (T_A=25°C)

Parameter	Symbol	1N 4001W	1N 4002W	1N 4003W	1N 4004W	1N 4005W	1N 4006W	1N 4007W	Unit
Marking		A1	A2	A3	A4	A5	A6	A7	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	
Maximum Average Forward Rectified Current at T _c = 125 °C	I _{F(AV)}	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	30							
Maximum Instantaneous Forward Voltage at 1 A	V _F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _a = 25°C	5							μA
	T _a = 125°C	50							
Typical Junction Capacitance ⁽¹⁾	C _J	8(TYP.)							pF
Typical Thermal Resistance ⁽²⁾	R _{θJA}	90							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C

(1) Measured at 1 MHz and Applied Reverse Voltage Of 4V D.C

(2) P.C.B. Mounted With 2.0" X 2.0" (5 X 5 cm) Copper Pad Areas.

CHARACTERISTIC CURVES

Fig. 1- Forward Current Derating Curve

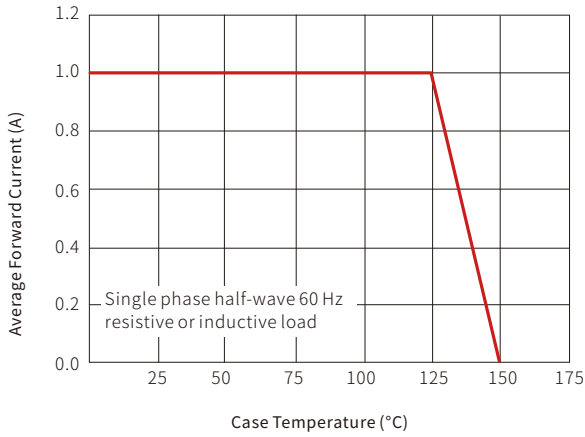


Fig. 2-Typical Instaneous Reverse Characteristics

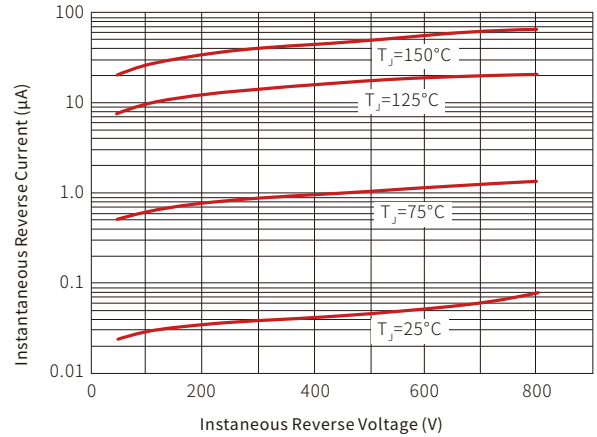


Fig. 3-Typical Forward Characteristic

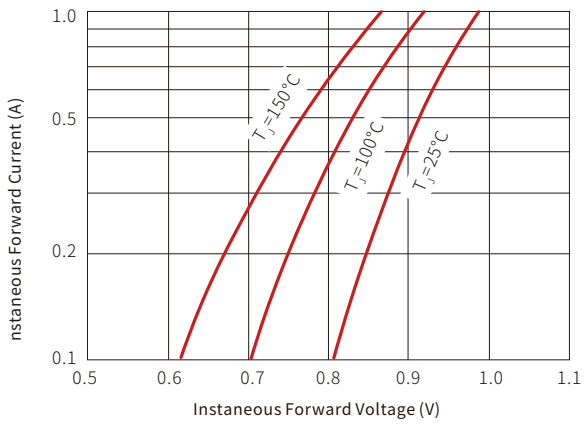


Fig. 4-Typical Junction Capacitance

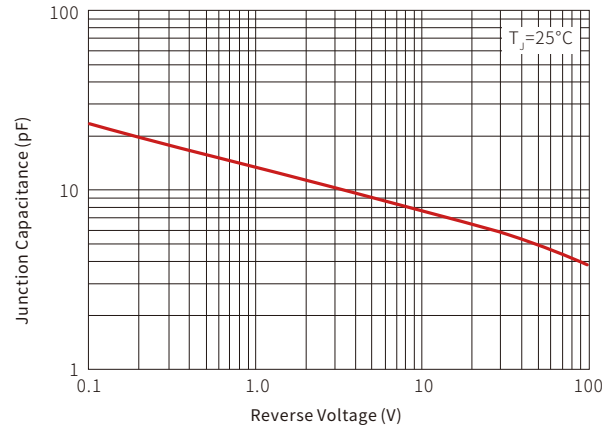
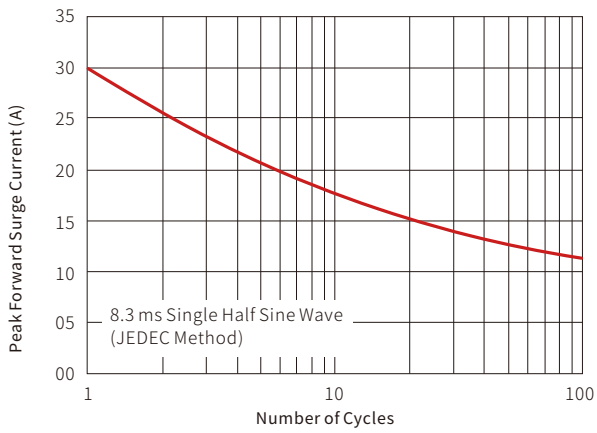
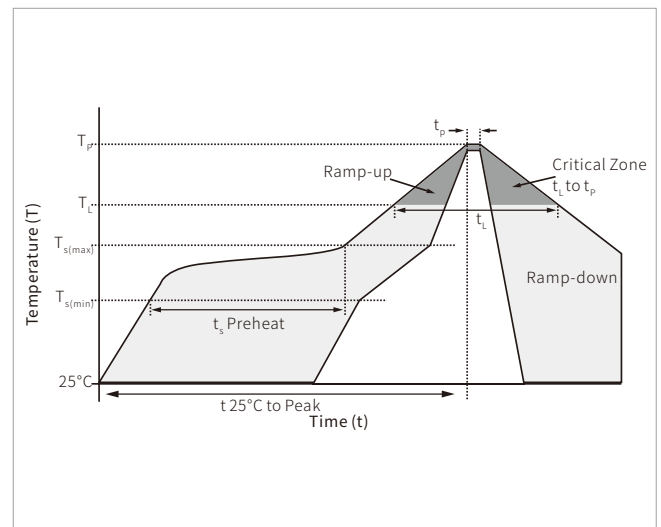


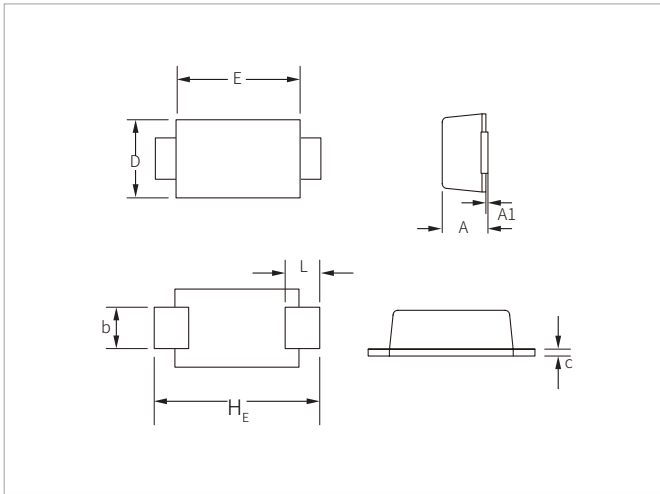
Fig. 5- Maximum Non-Repetitive Peak Forward Surge Current


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

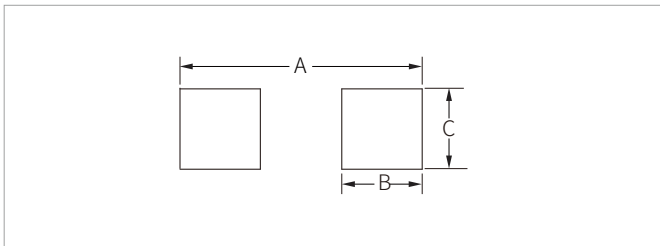


SOD-123FL PACKAGE INFORMATION



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
1N4001W-1N4007W	SOD-123FL	3000PCS	7"

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By QR Code

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