

FEATURES

- | Low Profile Package
- | Ideal For Automated Placement
- | Glass Passivated Chip Junction
- | Switching For General Purpose
- | High Forward Surge Capability



SOD-123FL



Schematic Symbol

APPLICATIONS

- | For Use In General Purpose Switching Rectification of Power Supply, Inverters, Converters, and Freewheeling Diodes For Consumer and Telecommunication.

APPROVALS

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

MAXIMUM RATINGS AND CHARACTERISTICS (T_A=25°C)

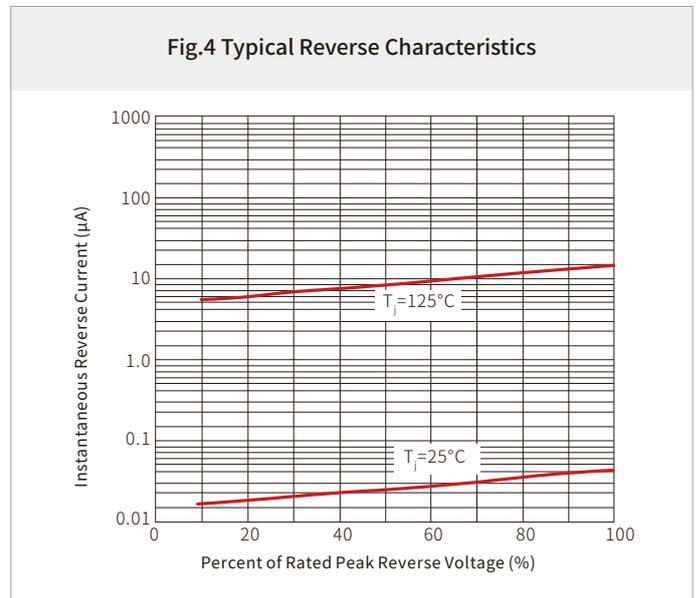
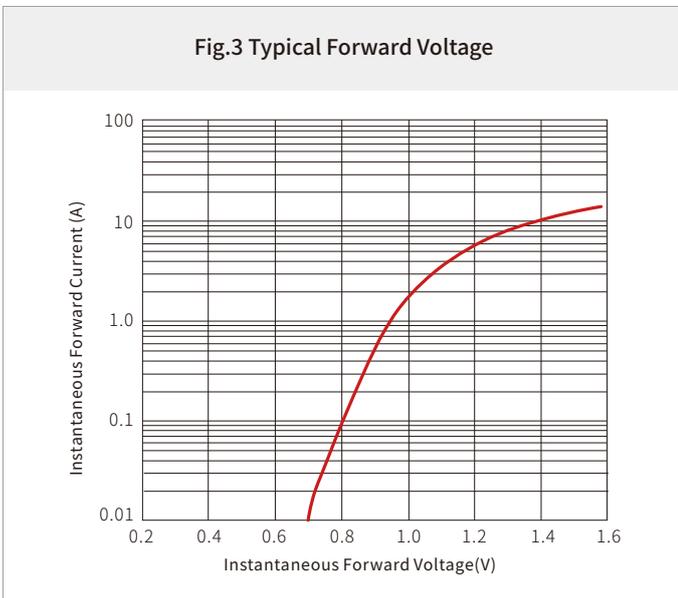
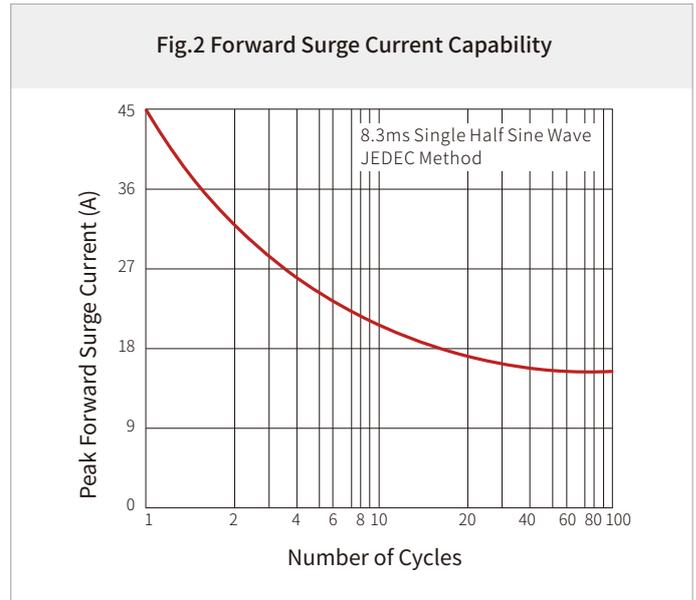
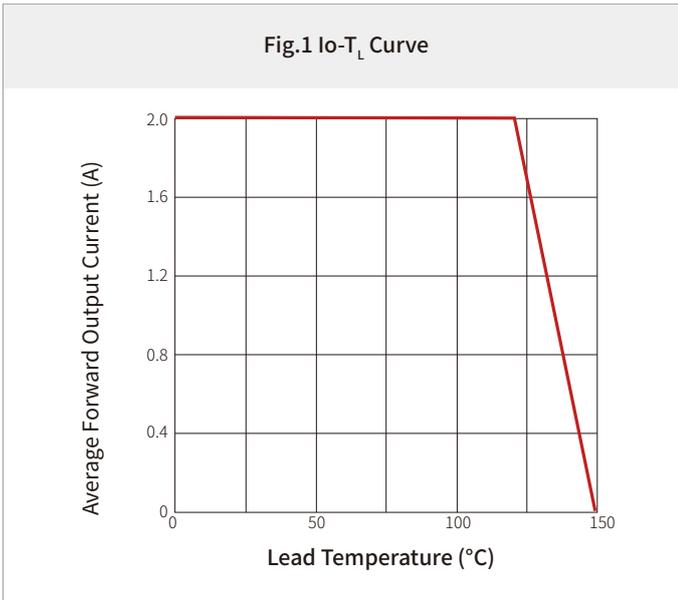
Parameter	Symbol	G2A	G2B	G2D	G2G	G2J	G2K	G2M	Unit
Marking		G2A	G2B	G2D	G2G	G2J	G2K	G2M	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	
Average Rectified Output Current @60Hz Sine Wave, Resistance Load, TL (FIG.1)	I _o				2				A
Forward Surge Current (Non-Repetitive) @60Hz Half-Sine Wave, 1 cycle, T _j =25°C	I _{FSM}				45				
Forward Surge Current (Non-Repetitive) @1ms, Square Wave, 1 cycle, T _j =25°C					90				
Maximum Instantaneous Forward Voltage I _{FM} =2A	V _F				1.1				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R				5				μA
					100				
Typical Junction Capacitance Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	C _J				10				pF
Current Squared Time @1ms ≤ t ≤ 8.3ms T _j =25°C	I ² t				8.4				A ² s
Operating and Storage Temperature Range	T _J , T _{STG}				-55 to +150				°C

THERMAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

Parameter	Symbol	G2A	G2B	G2D	G2G	G2J	G2K	G2M	Unit
Typical Thermal resistance	$R_{\theta\text{-A}}^{(1)}$				65				$^\circ\text{C/W}$
	$R_{\theta\text{-L}}^{(1)}$				18				
	$R_{\theta\text{-C}}^{(1)}$				16				

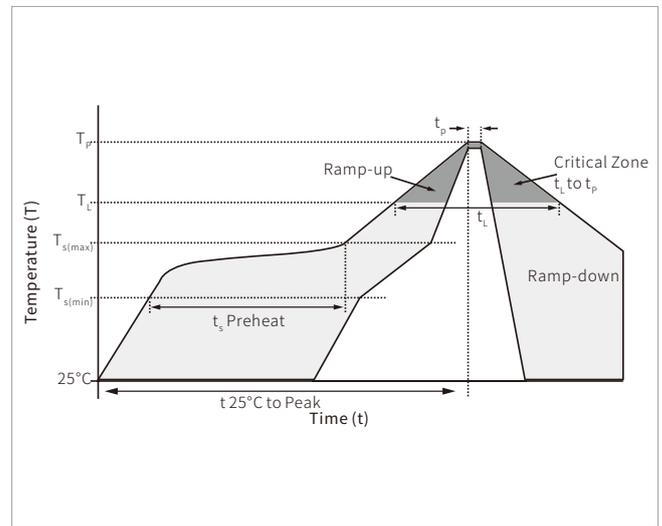
Note: (1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

CHARACTERISTIC CURVES

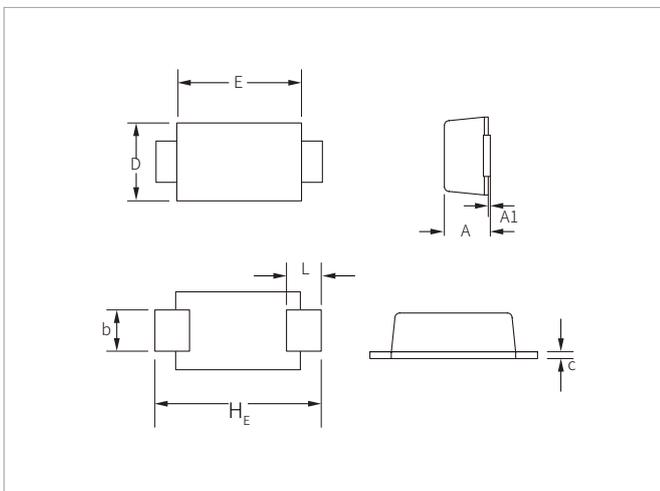


SOLDERING PARAMETERS

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

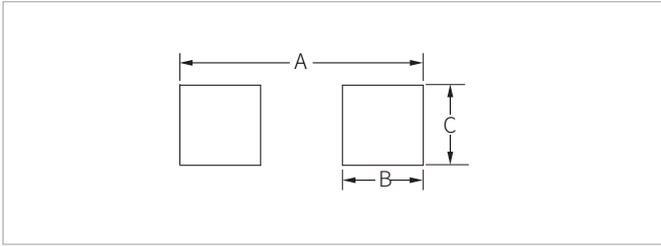


SOD-123FL PACKAGE INFORMATION



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	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
G2A-G2M	SOD-123FL	3000PCS	7"

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