

FEATURES

- Glass passivated device
- Ideal for surface mounted applications
- Low reverse leakage
- Metallurgically bonded construction



SOD-123FL



Schematic Symbol

MECHANICAL DATA

- Case: JEDEC SOD-123FL molded plastic body over passivated chip
- Mounting Position: Any

APPROVALS

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

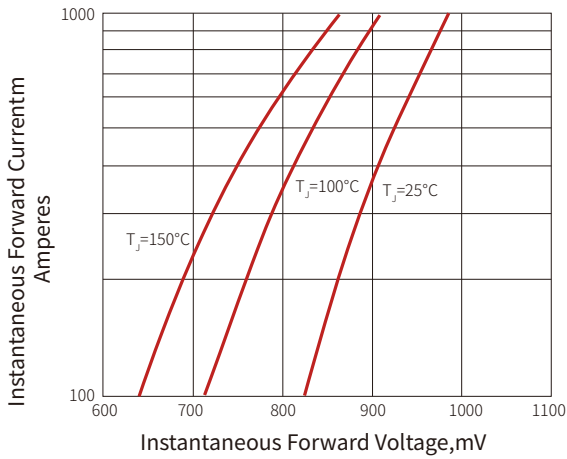
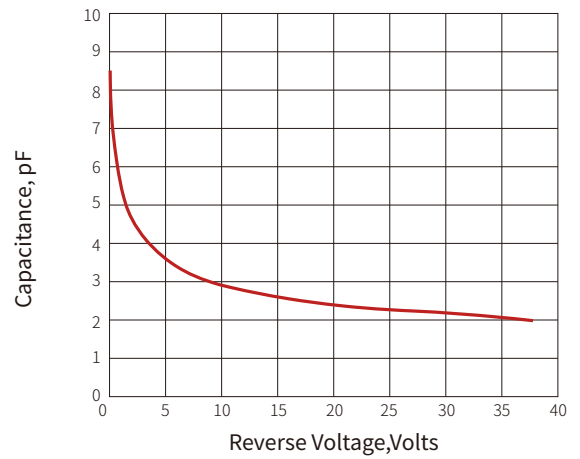
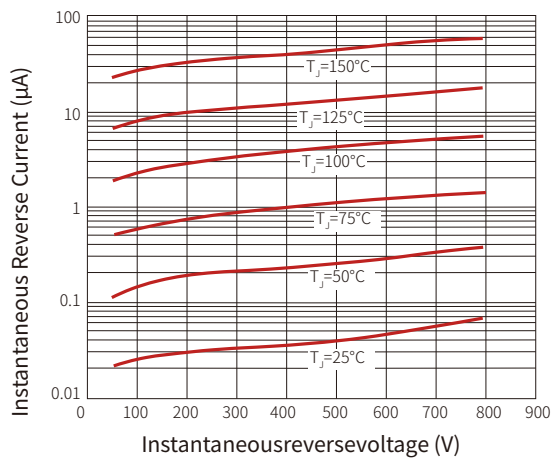
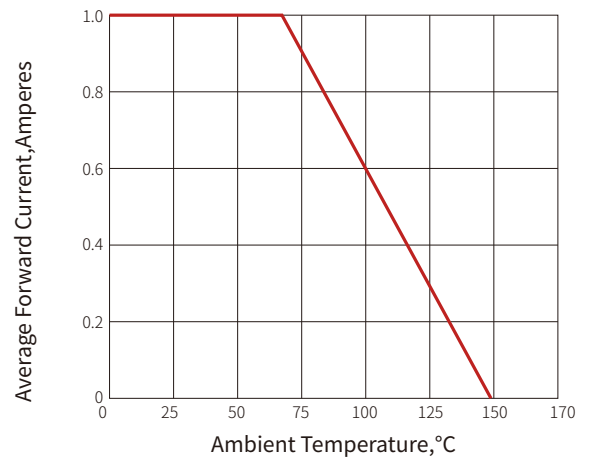
MAXIMUM RATINGS AND CHARACTERISTICS (T_A=25°C)

Parameter		Symbol	A1	A2	A3	A4	A5	A6	A7	Unit
Marking			A1	A2	A3	A4	A5	A6	A7	
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	
Maximum Average Forward Rectified Current at T _A =65°C		I _{F(AV)}	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) TL=25°C		I _{FSM}	25							
Instantaneous Forward Voltage I _F =1A		V _F	1.1							V
Maximum DC reverse current at rated DC blocking voltage	T _A =25°C	I _R	2							μA
	T _A =125°C		100							
Typical junction capacitance (NOTE 1)		C _J	4.6							pF
Typical thermal resistance (NOTE 2)		R _{θJA}	70							°C/W
Operating And Storage Temperature Range		T _J ,T _{STG}	-55~+150							°C

Note:

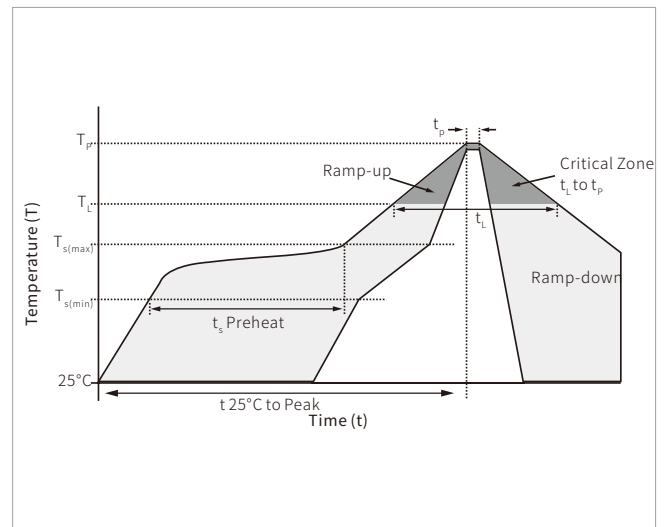
- Measured at 1MHz and applied reverse voltage of 4.0V D.C
- Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas

CHARACTERISTIC CURVES

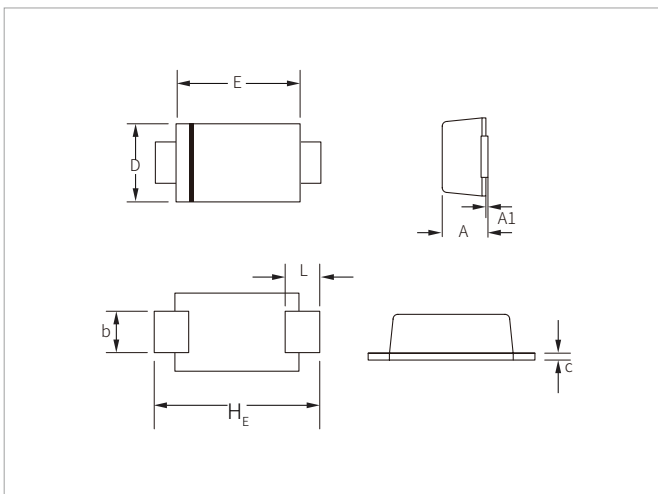
Fig.1 Typical forward characteristic

Fig.2 Typical Junction capacitance

Fig.3 Typical Instantaneous Reverse characteristics

Fig.4 Forward derating curve


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

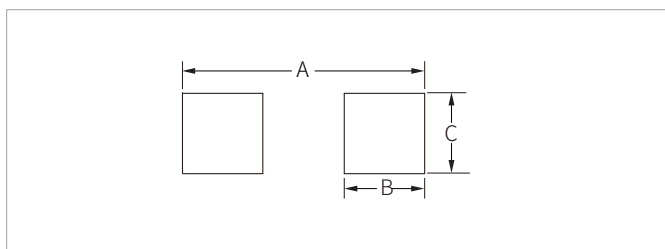


SOD-123FL PACKAGE INFORMATION



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
HE	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
A1-A7	SOD-123FL	3000PCS	7"

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