

Surface Mount Glass Passivated Rectifiers

Features

- For surface mounted applications
- Low reverse leakage current
- Low forward voltage drop
- High surge capacity
- Meet UL flammability classification 94V-0

Mechanical Data

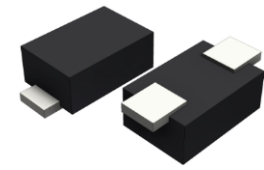
- Case: JEDEC SOD-123FL molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

Applications

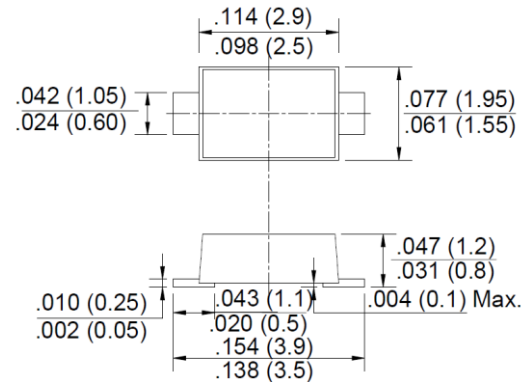
- For use in low voltage, high frequency inverters, polarity protection applications

Reverse Voltage - 50 to 1000Volts
Forward Current - 1.0 Amperes

SOD-123FL



RoHS
COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	S1AL	S1BL	S1DL	S1GL	S1JL	S1KL	S1ML	Unit
	Marking	S1AL	S1BL	S1DL	S1GL	S1JL	S1KL	S1ML	
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @TL=100 °C	l(AV)	1.0							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	IFSM	25							A
I²t Rating for Fusing (t<8.3mS)	I²t	2.6							A²s
Peak Forward Voltage at 1.0A DC (Note1)	VF	1.1							V
Maximum DC Reverse Current @Tj=25°C	IR	5.0							uA
at Rated DC Blocking Voltage @Tj=125°C		50							
Typical Thermal Resistance Junction to Lead	RθJL	35							°C/W
Typical Thermal Resistance Junction to Ambient	RθJA	150							°C/W
Operating Junction Temperature Range	TJ	-55 to+150							°C
Storage Temperature Range	TSTG	-55 to+150							°C

Notes: 1. 300uS pulse width, 2%duty cycle.

2. Mounted on FR-4 P.C.B. With 0.9x1.5 mm copper pad areas (≈35 μm thick)

3. The typical data above is for reference only .

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Fig. 1 - Forward Current Derating Curve

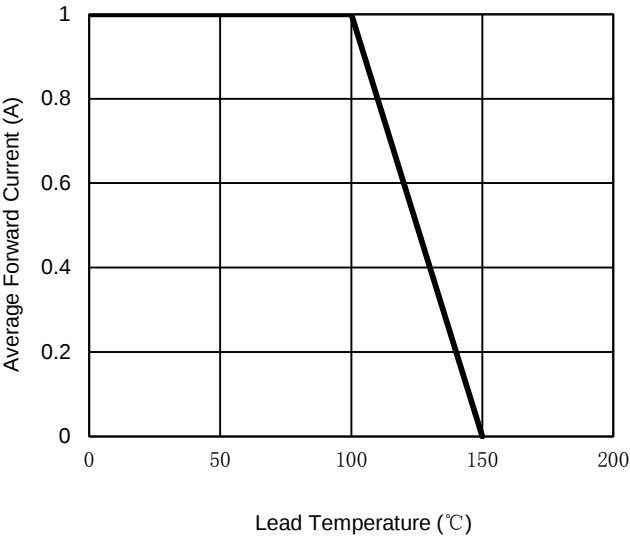


Fig. 2 - Maximum Non-Repetitive Surge Current

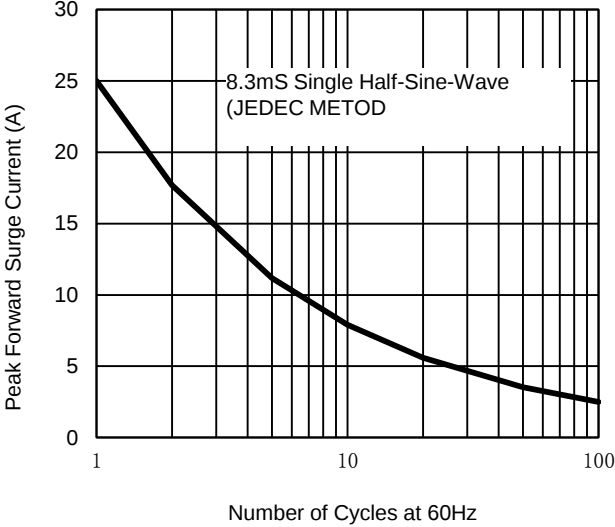


Fig. 3 - Typical Reverse Characteristics

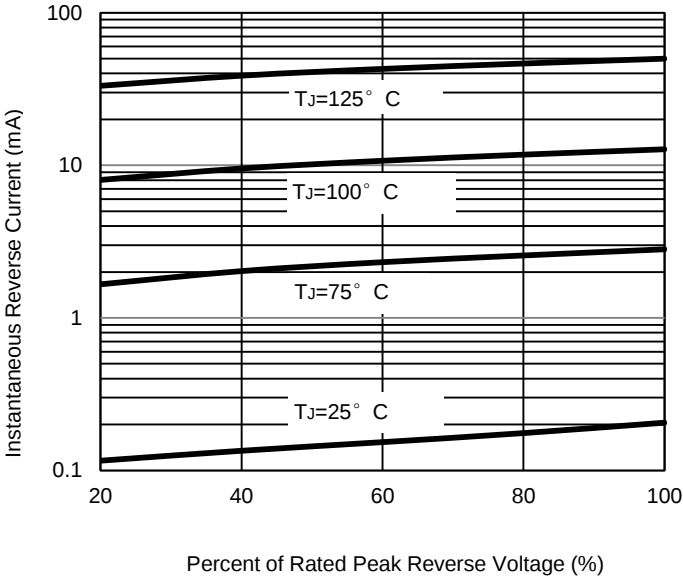
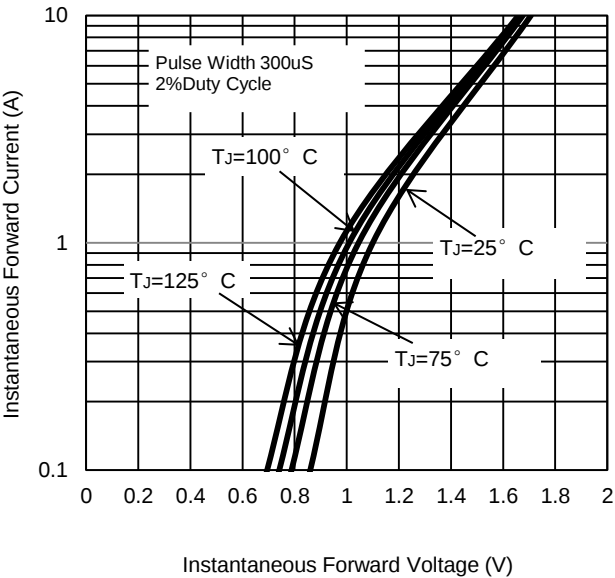


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

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