

**Surface Mount Glass Passivated Rectifiers****Reverse Voltage - 50 to 1000Volts
Forward Current - 1.0 Amperes****Features**

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

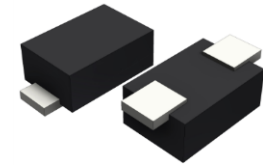
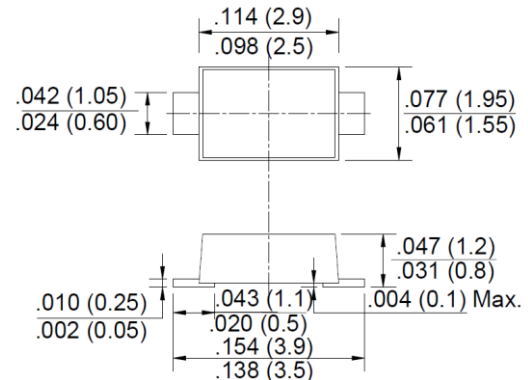
Mechanical Data

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

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

Applications

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

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	V _{RRM}	50	100	200	400	600	800	1000	V
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	V
Maximum Average Forward Rectified Current @T _L =100 °C	I _(AV)	1.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	25							A
I ² t Rating for Fusing (t<8.3ms)	I ² t	2.6							A ² s
Peak Forward Voltage at 1.0A DC (Note1)	V _F	1.1							V
Maximum DC Reverse Current @T _J =25°C	I _R	5.0							uA
at Rated DC Blocking Voltage @T _J =125°C		50							
Typical Thermal Resistance Junction to Lead	R _{θJL}	35							°C/W
Typical Thermal Resistance Junction to Ambient	R _{θJA}	150							°C/W
Operating Junction Temperature Range	T _J	-55 to+150							°C
Storage Temperature Range	T _{STG}	-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 .



Fig. 1 - Forward Current Derating Curve

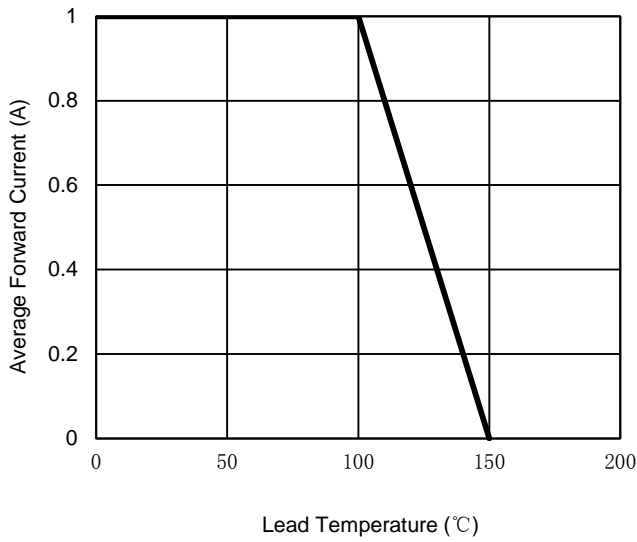


Fig. 2 - Maximum Non-Repetitive Surge Current

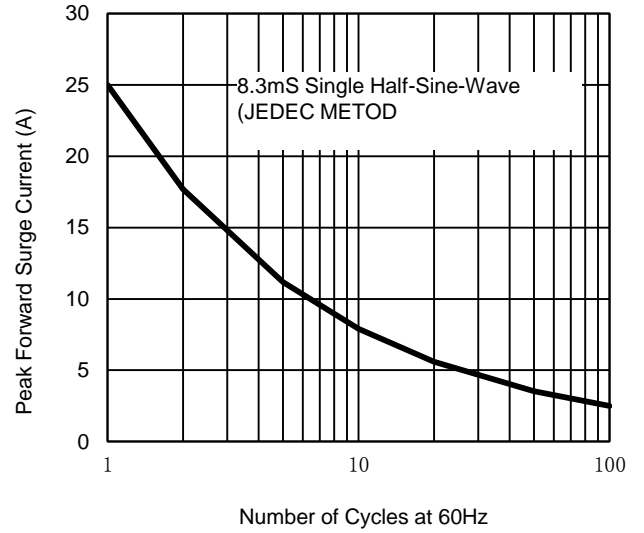


Fig. 3 - Typical Reverse Characteristics

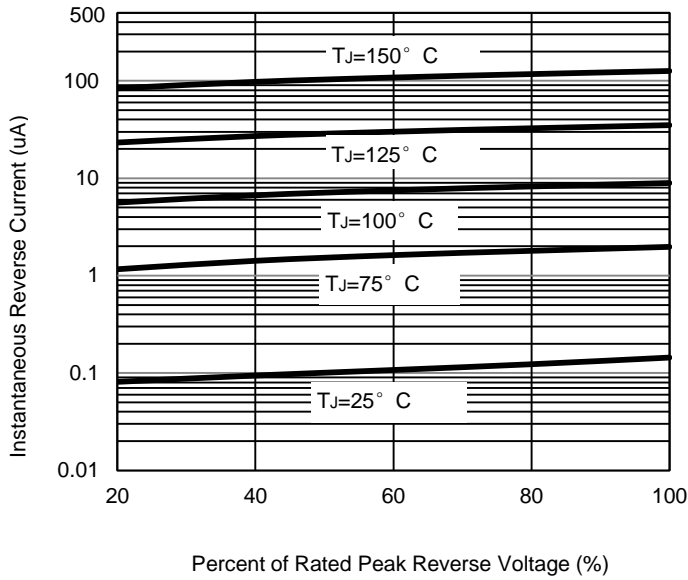
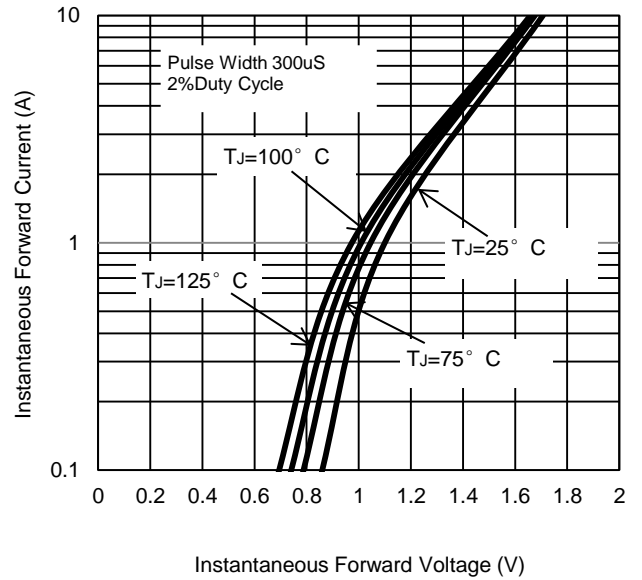


Fig. 4 - Typical Forward Characteristics





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