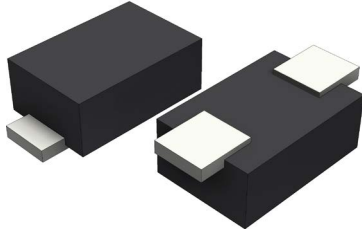


**RoHS
Compliant**



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: Colour band denotes cathode
- Mounting position: Any

Applications

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

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	S1JL	S1ML	Unit
	Marking	S1JL	S1ML	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	600	1000	V
Maximum RMS Voltage	V _{RMS}	420	700	
Maximum DC Blocking voltage	V _{DC}	600	1000	
Maximum Average Forward Rectified Current @T _L =100°C	I _(AV)	1		A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	25		
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 at Rated DC Blocking Voltage @T _J =125°C	I _R	5		μA
		50		
Typical Thermal Resistance Junction to Lead	R _{θJL}	35		nS
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		

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

2. Mounted on FR-4 P.C.B. With 0.9mm × 1.5mm copper pad areas ($\approx 35 \mu m$ thick)

3. The typical data above is for reference only .

Rating and Characteristic Curves

Fig. 1 - Forward Current Derating Curve

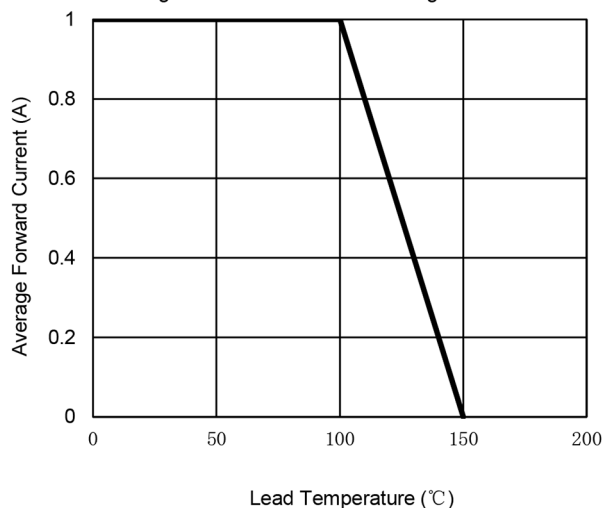


Fig. 2 - Maximum Non-Repetitive Surge Current

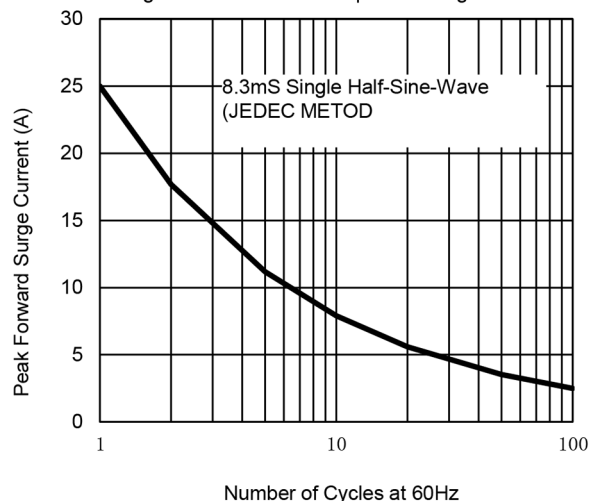


Fig. 3 - Typical Reverse Characteristics

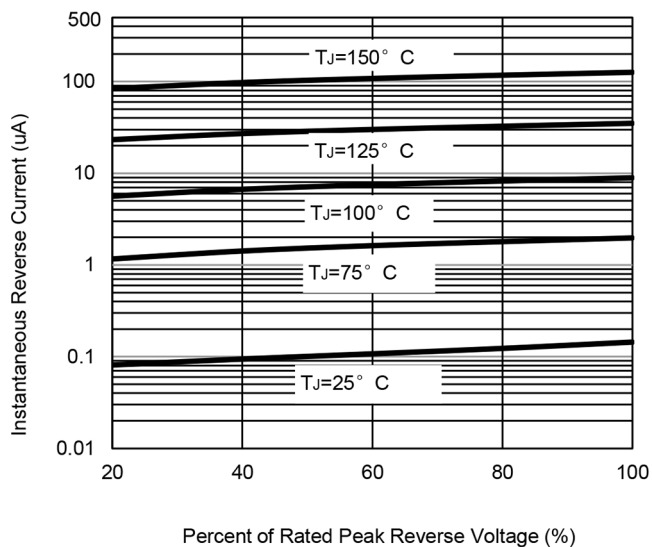
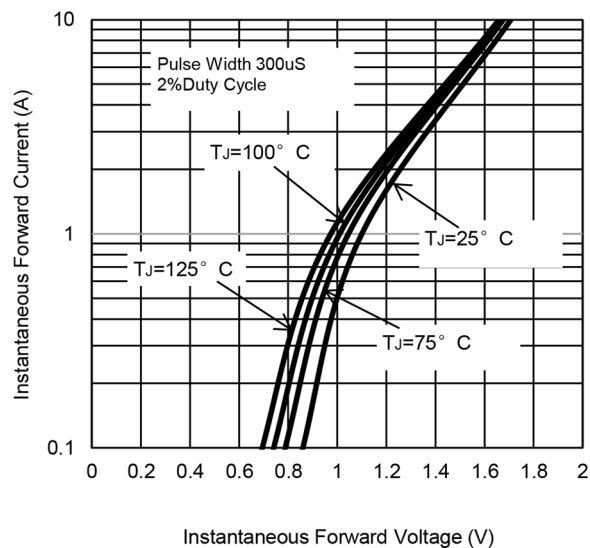
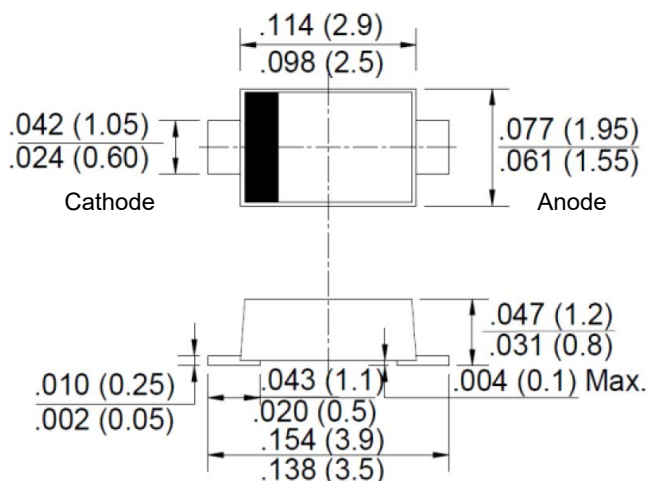


Fig. 4 - Typical Forward Characteristics



Packaging Dimensions



SOD-123FL

Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Rectifier Diode, 1A, 600V, SOD-123FL	S1JL
Rectifier Diode, 1A, 1000V, SOD-123FL	S1ML

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