

RoHS  
Compliant

## Features

- Ideal for Automated Placement
- Low profile space
- Glass Passivated Chip Junctions
- Low reverse leakage current
- High current capability
- Low forward voltage drop

## Mechanical Data

- Case: JEDEC SOD-123FL Molded plastic
- Polarity: Colour band denotes cathode
- Mounting position: Any

## Applications

- For use in SMPS, high frequency inverters, PWM and 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	ES1JL	Unit
	Marking	E1JL	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	600	V
Maximum RMS Voltage	$V_{RMS}$	420	
Maximum DC Blocking voltage	$V_{DC}$	600	
Maximum Average Forward Rectified Current @ $T_A=55^{\circ}C$	$I_{(AV)}$	1	A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	25	
Peak Forward Voltage at 1.0A DC	$V_F$	1.7	V
Maximum DC Reverse Current @ $T_J=25^{\circ}C$ at Rated DC Blocking Voltage @ $T_J=100^{\circ}C$	$I_R$	5	$\mu A$
		50	
Maximum Reverse recovery time @ $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	$t_{rr}$	35	nS
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	150	$^{\circ}C/W$
Operating Junction Temperature Range	$T_J$	-55 to +150	$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +150	

NOTE: 1. Mounted on FR-4 P.C.B. With 0.9x1.5 mm copper pad areas ( $\approx 35 \mu m$  thick)

2. The typical data above is for reference only.

## Rating and Characteristic Curves

Fig. 1 - Forward Current Derating Curve

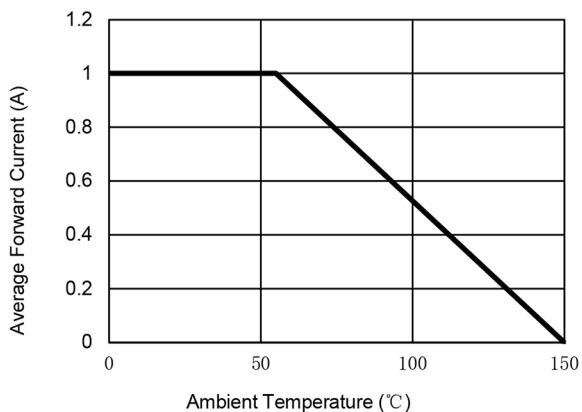


Fig. 2 - Maximum Non-Repetitive Surge Current

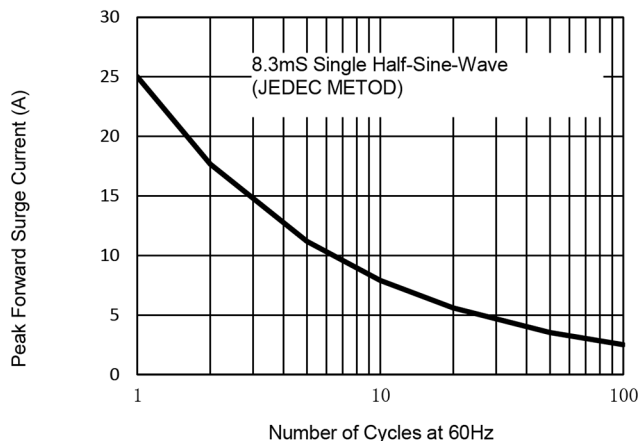


Fig. 3 - Typical Reverse Characteristics

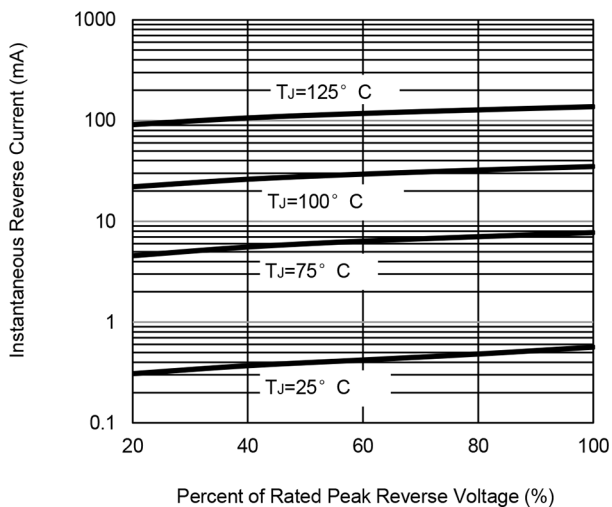
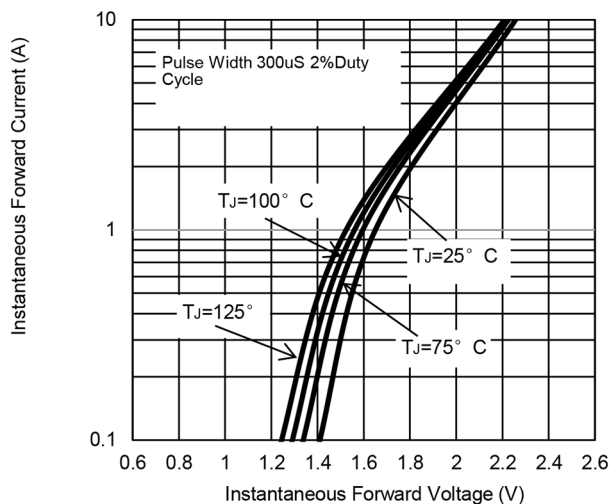
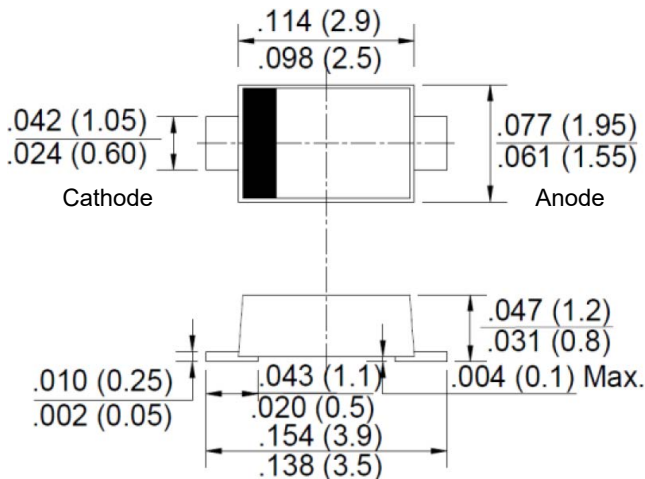


Fig. 4 - Typical Forward Characteristics



## Packaging Dimensions



### SOD-123FL

Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Rectifier Diode, Super Fast, 1A, 600V, 35ns, SOD-123FL	ES1JL

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