

Surface Mount Super Fast Glass Passivated Rectifiers

Reverse Voltage - 50 to 400 Volts
Forward Current - 1.0 Amperes

Features

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

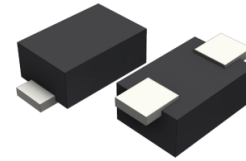
Mechanical Data

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

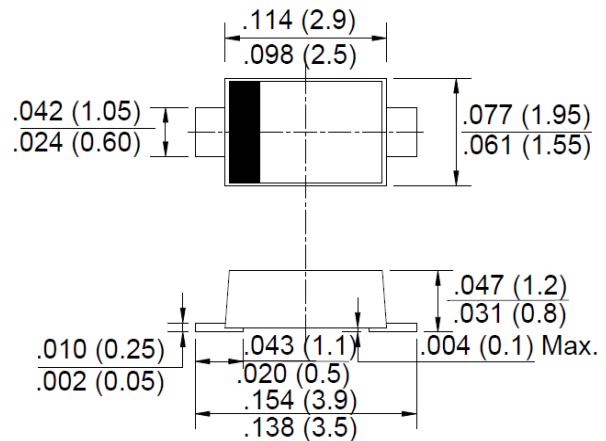
Applications

- For use in SMPS, high frequency inverters, PWM and 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	ES1AL	ES1BL	ES1CL	ES1DL	ES1FL	ES1GL	Unit
	Marking	E1AL	E1BL	E1CL	E1DL	E1FL	E1GL	
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	150	200	300	400	V
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	V
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	V
Maximum Average Forward Rectified Current @TA=55°C	I(AV)	1.0						A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	IFSM	25						A
Peak Forward Voltage at 1.0A DC	VF	0.95				1.25		V
Maximum DC Reverse Current @TJ=25°C	IR	5.0						µA
at Rated DC Blocking Voltage @TJ=100°C		150						
Maximum Reverse recovery time @IF=0.5A, IR=1.0A, Irr=0.25A	trr	35						nS
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. Mounted on FR-4 P.C.B. With 0.9x1.5 mm copper pad areas (≈35 µm thick)

2. The typical data above is for reference only.

Fig. 1 - Forward Current Derating Curve

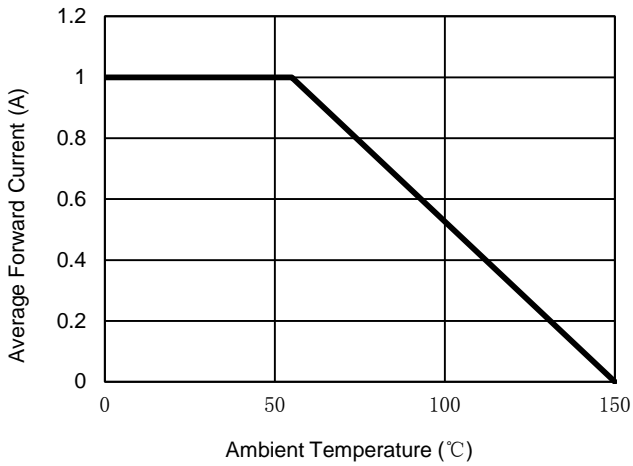


Fig. 2 - Maximum Non-Repetitive Surge Current

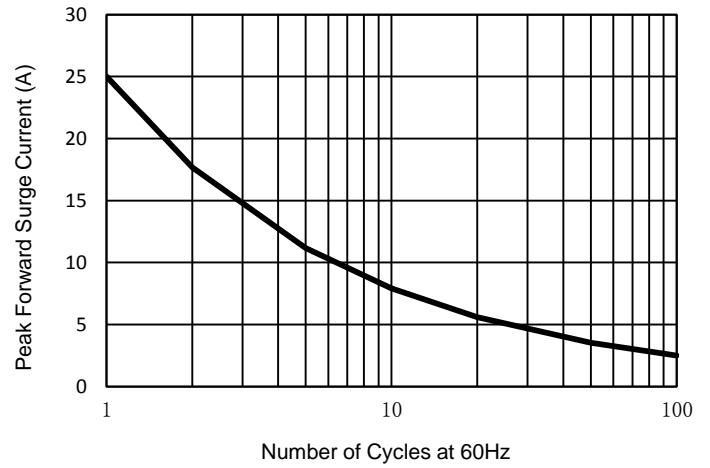


Fig. 3 - Typical Reverse Characteristics

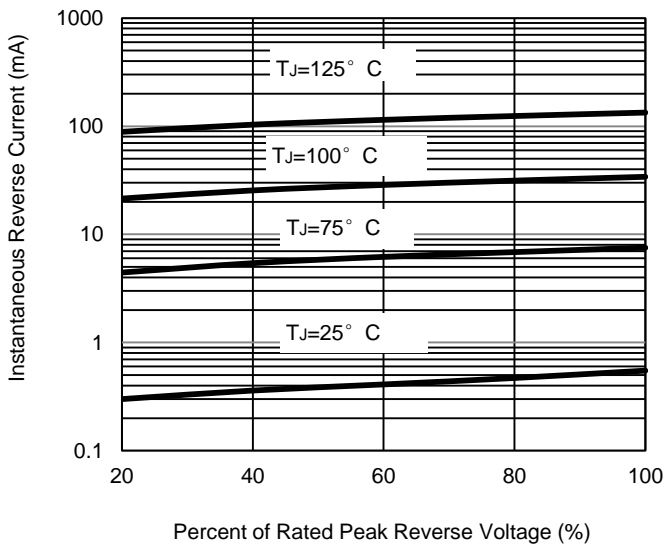


Fig. 4 - Typical Forward Characteristics

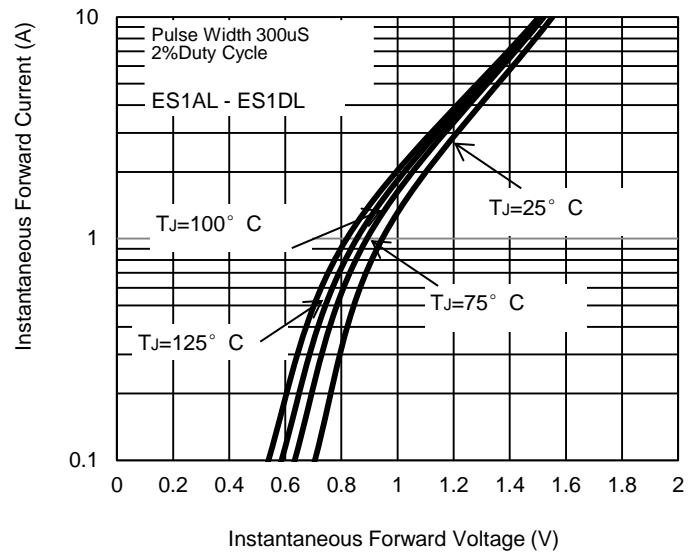
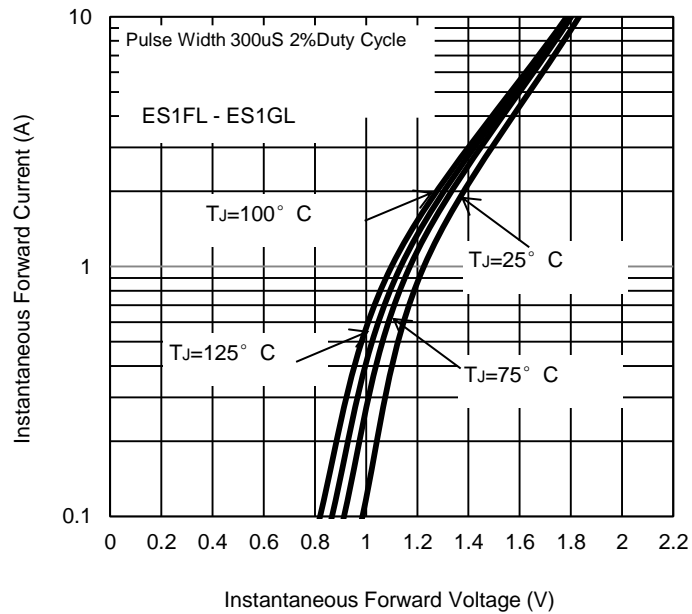


Fig. 5 - Typical Forward Characteristics





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