

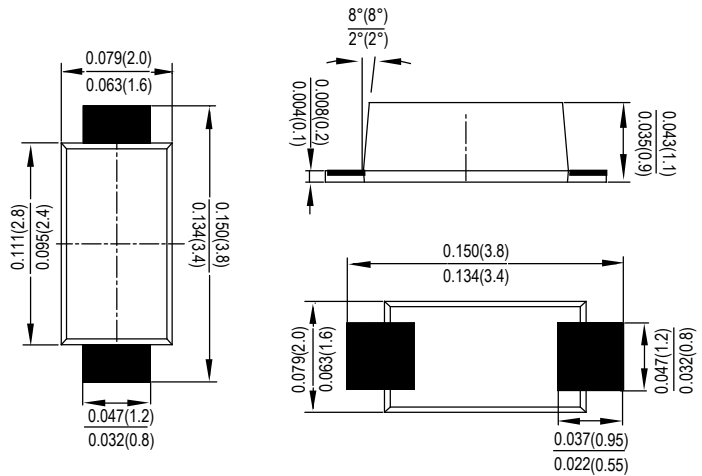
Features

- Glass passivated device
- Ideal for surface mounted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:
260°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: SOD-123FL, molded plastic
- Terminals: plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any

SOD-123FL



Dimensions in inches and (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%.

TYPE NUMBER	SYMBOL	ES1AL	ES1BL	ES1DL	ES1GL	ES1JL	UNITS
	Code	EA	EB	ED	EG	EJ	
Peak Repetitive Reverse Voltage	V_{RRM}						V
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	
DC Blocking Voltage	V_{DC}						
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	V
Average Rectified Output Current @ $T_L = 90^\circ C$	$I_{F(AV)}$	1.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30					A
I^2t Rating for Fusing ($t < 8.3ms$)	I^2t	3.735					A ² s
Forward Voltage per element @ $I_F = 1.0A$	V_{FM}	0.95			1.25	1.7	V
Peak Reverse Current @ $T_A = 25^\circ C$ At Rated DC Blocking Voltage @ $T_A = 125^\circ C$	I_R				5.0	100	μA
Maximum reverse recovery time (NOTE 1)	t_{rr}				35		ns
Typical junction capacitance (NOTE 2)	C_J				10		pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$				85		°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55to+150					°C

Note:1. Measured with $I_F = 0.5A$, $I_R = 1A$, $I_{rr} = 0.25A$.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

FIG. 1- FORWARD CURRENT DERATING CURVE

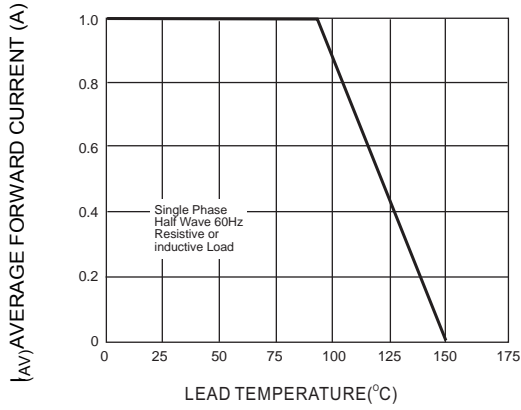


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

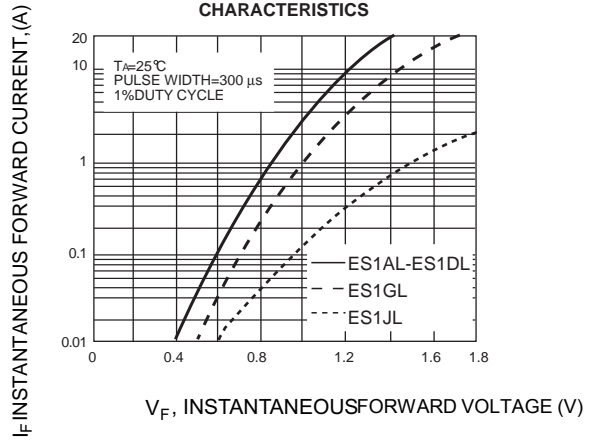


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

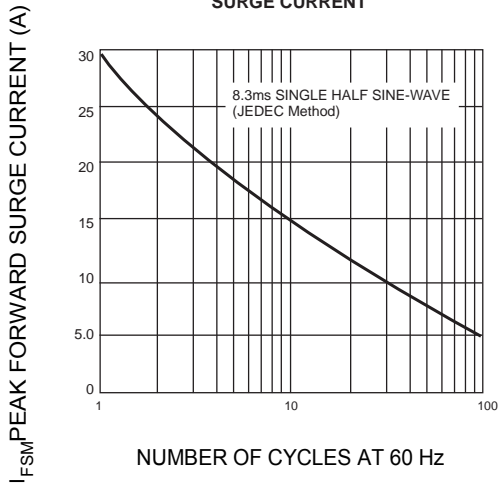


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

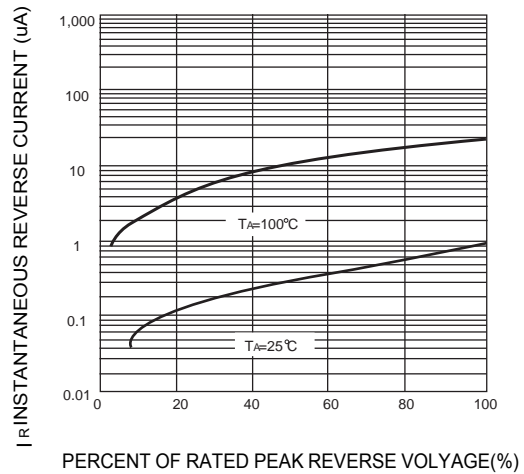
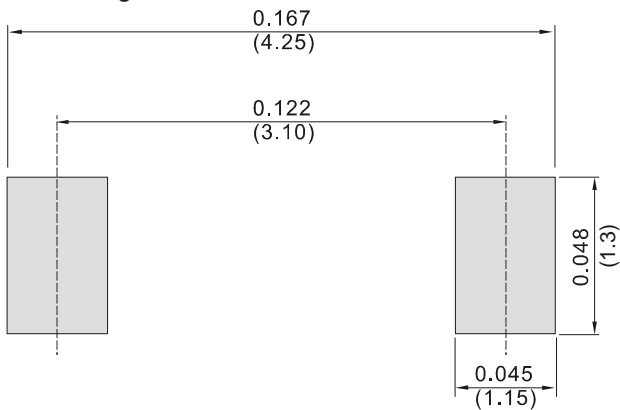


Fig.5 TYPICAL CAPACITANCE



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