

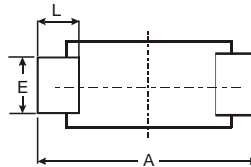
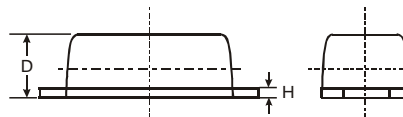
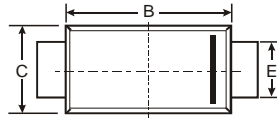
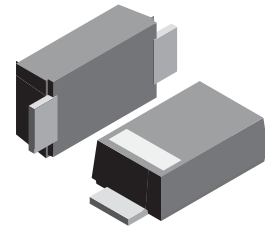
**VOLTAGE RANGE: 100 - 600V**  
**CURRENT: 1.0A**

### Features

- Glass passivated device
- Ideal for surface mounted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:  
 250°C/10 seconds, 0.375" (9.5mm) lead length,  
 5 lbs. (2.3kg) tension

### Mechanical Data

- Case: SOD-123FL  
 plastic body over passivated junction
- Terminals: Plated axial leads,
- solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0007 ounce, 0.02 grams



SOD-123FL			
Dim	Min	Max	Typ
A	3.58	3.72	3.65
B	2.72	2.78	2.75
C	1.77	1.83	1.80
D	1.02	1.08	1.05
E	0.097	1.03	1.00
H	0.13	0.17	0.15
L	0.53	0.57	0.55
All Dimensions in mm			

### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	ES1001FL	ES1002FL	ES1003FL	ES1004FL	ES1006FL	Unit
	Marking	E1B	E1D	E1E	E1G	E1J	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	100	200	300	400	600	VOLTS
Maximum RMS voltage	V <sub>RMS</sub>	70	140	210	280	420	VOLTS
Maximum DC blocking voltage	V <sub>DC</sub>	100	200	300	400	600	VOLTS
Maximum average forward rectified current	I(AV)	1.0					Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	25.0					Amps
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	0.95		1.25		1.7	Volts
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>			5.0 100.0			μA
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>			35			ns
Typical junction capacitance (NOTE 2)	C <sub>J</sub>			10			pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub>			85			K/W
Operating junction and storage temperature range	T <sub>JTSTG</sub>			-55 to +150			°C

**Note:** 1. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=0.25A.  
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 3. PCB mounted on 0.2\*0.2" (5.0\*5.0mm) copper pad area.

## RATINGS AND CHARACTERISTIC CURVES ES1001FL THRU ES1006FL

FIG. 1- FORWARD CURRENT DERATING CURVE

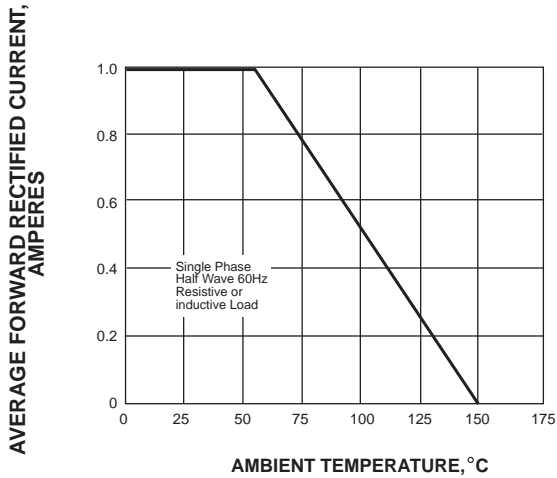


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

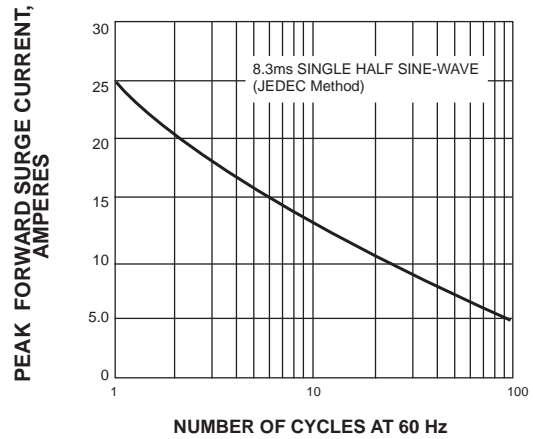


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

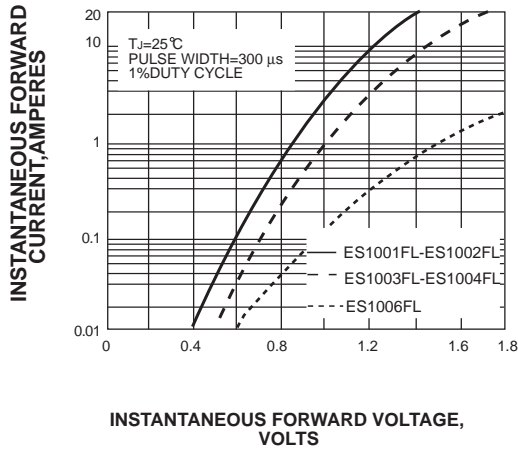


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

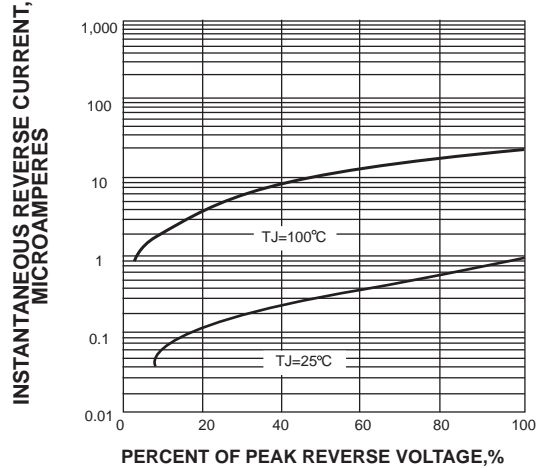


FIG. 5-TYPICAL JUNCTION CAPACITANCE

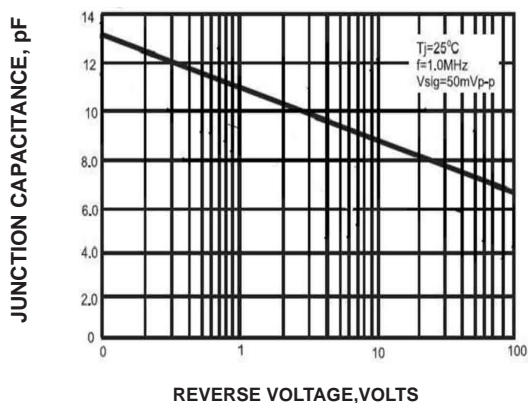


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

