

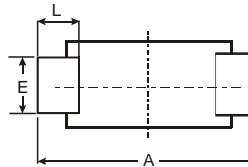
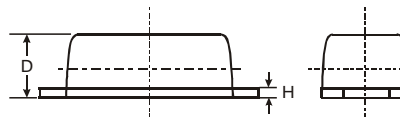
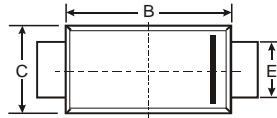
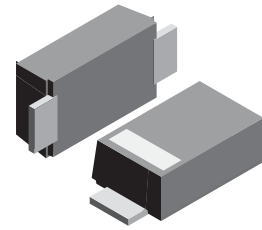
**VOLTAGE RANGE: 100 - 600V**  
**CURRENT: 1.0A**

### Features

- Glass passivated device
- Ideal for surface mouted 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
Maximum repetitive peak reverse voltage	VRRM	100	200	300	400	600	VOLTS
Maximum RMS voltage	VRMS	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)	IFSM	25.0					Amps
Maximum instantaneous forward voltage at 1.0A	VF	0.95	1.25		1.7		Volts
Maximum DC reverse current at rated DC blocking voltage	IR	5.0 100.0					μA
Maximum reverse recovery time (NOTE 1)	trr	35					ns
Typical junction capacitance (NOTE 2)	CJ	10					pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub>	85					K/W
Operating junction and storage temperature range	TJTSTG	-55 to +150					°C

**Note:** 1. Measured with IF=0.5A, IR=1A, Irr=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

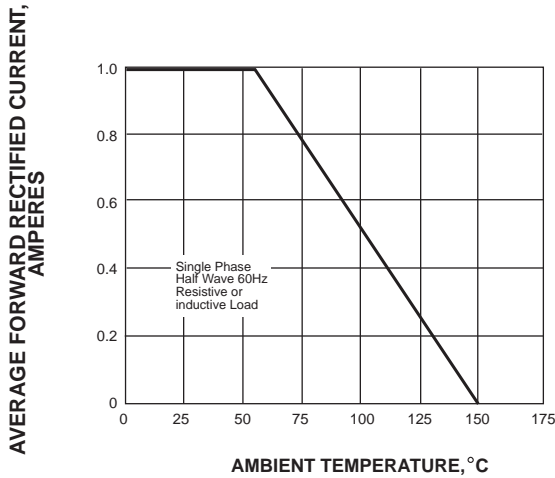


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

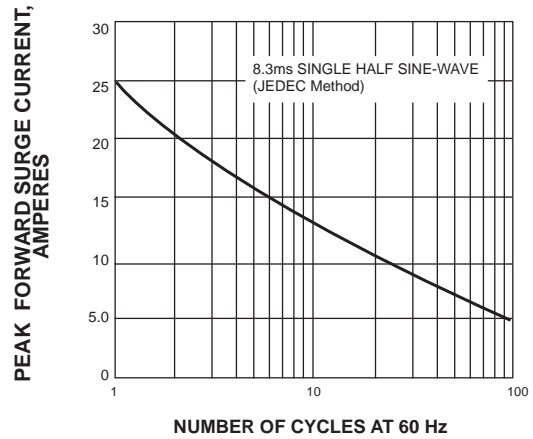


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

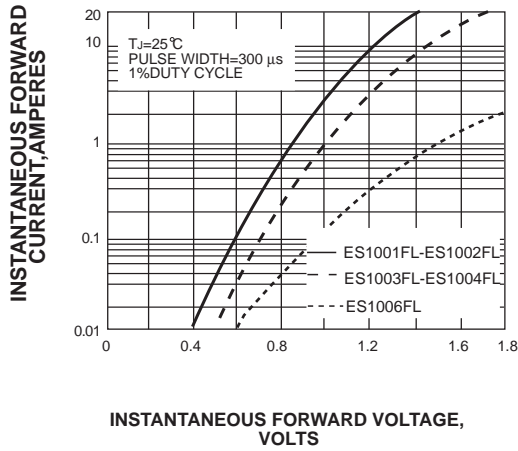


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

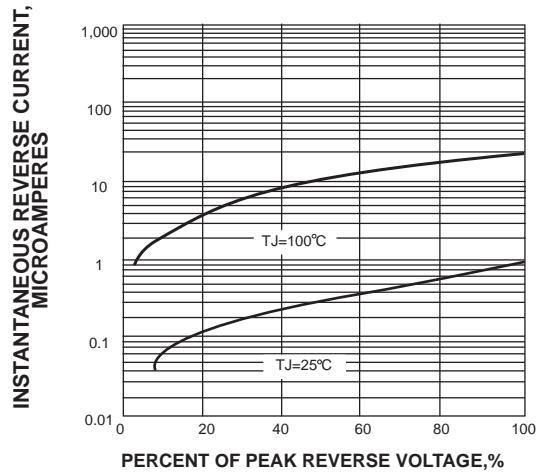


FIG. 5-TYPICAL JUNCTION CAPACITANCE

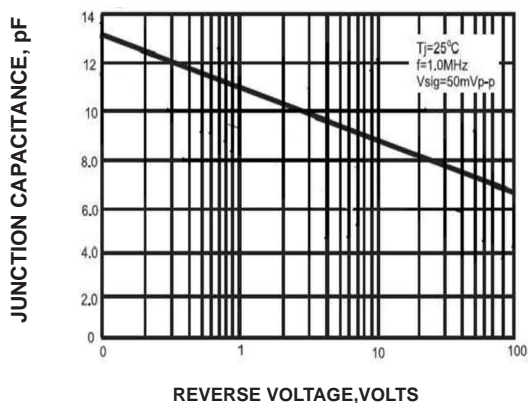


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

