

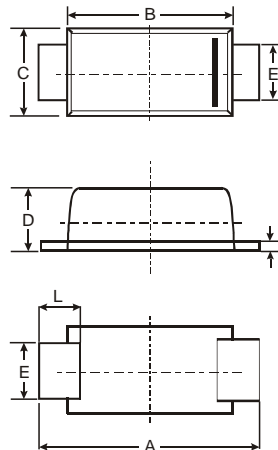
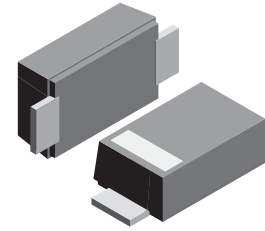
**VOLTAGE RANGE: 50 - 600V**  
**CURRENT: 1.0 A**

### Features

- Glass passivated device
- Ideal for surface mounted applications  
Low leakage current
- Metallurgically bonded construction  
High temperature soldering:  
250 /10 seconds at terminals

### 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			

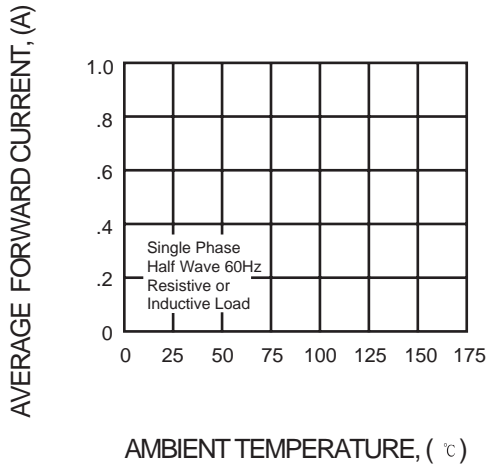
### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

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

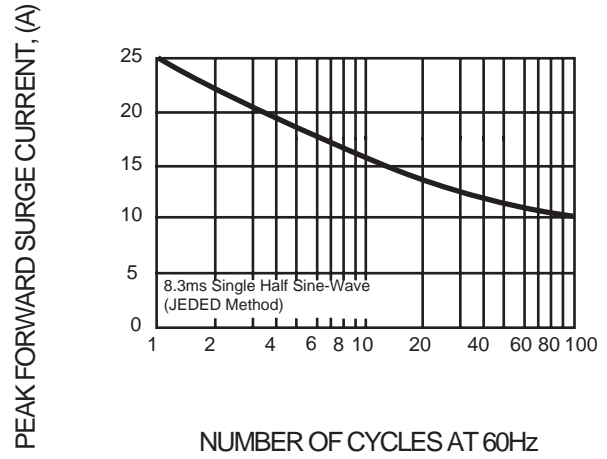
Characteristic	Symbol	SOD1E1	SOD1E2	SOD1E3	SOD1E4	SOD1E5	SOD1E6	SOD1E7	SOD1E8	Unit	
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	500	600	V	
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	350	420	V	
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	500	600	V	
Maximum average forward rectified current <small>T<sub>A</sub>=65</small>	I <sub>(AV)</sub>	1.0								A	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load <small>T<sub>L</sub>=25</small>	I <sub>FSM</sub>	25								A	
Maximum instantaneous (NOTE 1) forward voltage at 1.0A	V <sub>F</sub>	0.95			1.25		1.7			V	
Maximum DC reverse current @T <sub>A</sub> =25 at rated DC blocking voltage @T <sub>A</sub> =125	I <sub>R</sub>	5.0					150				μA
Maximum reverse recovery time (NOTE 2)	t <sub>rr</sub>	35								ns	
Operating temperature range	T <sub>j</sub>	- 55 --- + 150									
Storage temperature range	T <sub>STG</sub>	- 55 --- + 150									

NOTES: 1. Pulse test: 300ms pulse width, 1% duty cycle.  
 2. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=0.25A.

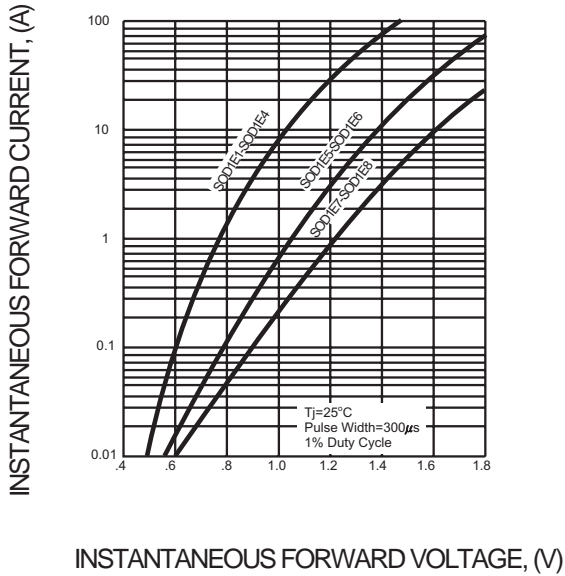
**FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE**



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



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**

