

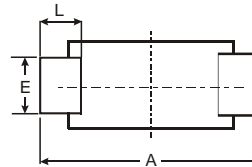
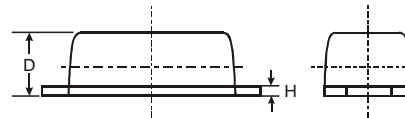
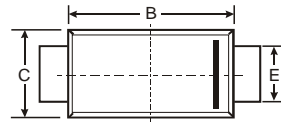
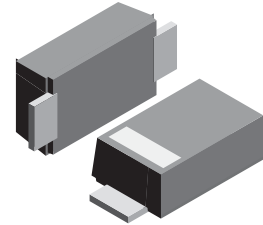
**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 1.0A**

### 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%.

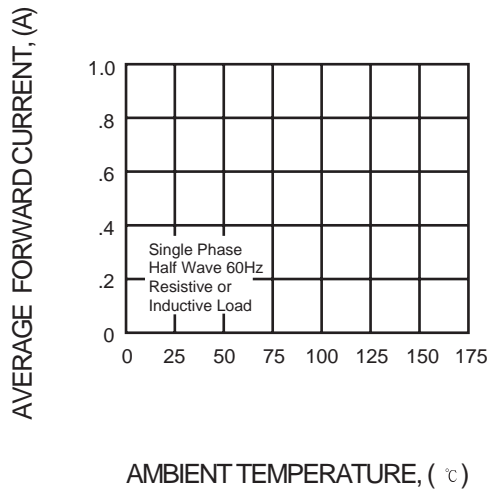
Characteristic	Symbol	SOD1H1	SOD1H2	SOD1H3	SOD1H4	SOD1H5	SOD1H6	SOD1H7	SOD1H8	Unit	
	Marking	H1	H2	H3	H4	H5	H6	H7	H8		
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	V	
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700	V	
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	1000	V	
Maximum average forward rectified current at T <sub>A</sub> =65°C (NOTE 1)	I <sub>(AV)</sub>	1.0								A	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T <sub>L</sub> =25°C	I <sub>FSM</sub>	25.0								A	
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.0		1.4		1.7				V	
Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> =25°C T <sub>A</sub> =125°C	I <sub>R</sub>	10.0				200.0				μA	
Maximum reverse recovery time (NOTE 2)	t <sub>rr</sub>	50					75				ns
Typical thermal resistance (NOTE 4)	R <sub>θJA</sub>	180								K/W	
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-50 to +150								°C	

- Note:**
1. Averaged over any 20ms period.
  2. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=0.25A.
  3. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
  4. Thermal resistance junction to ambient, 6.0 mm<sup>2</sup> copper pads to each terminal.

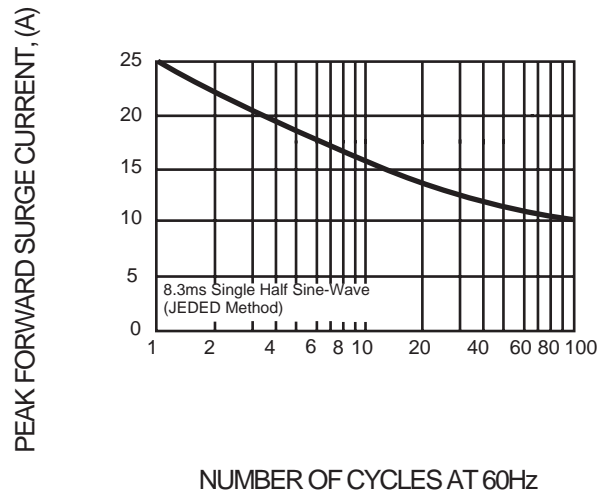


## RATINGS AND CHARACTERISTIC CURVES SOD1H1 THRU SOD1H8

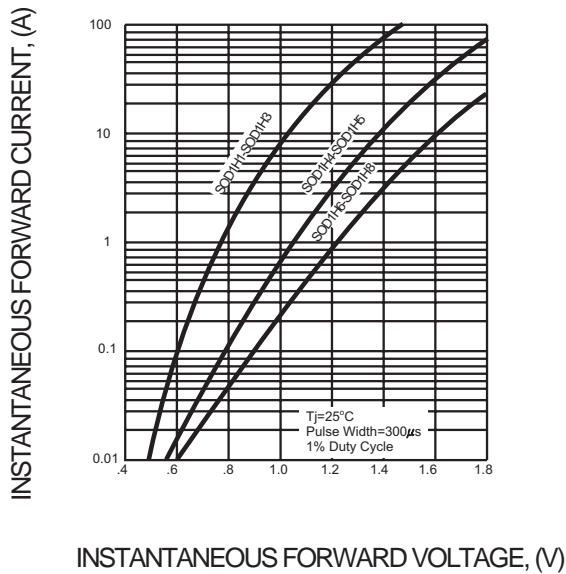
**FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE**



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



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



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**

