

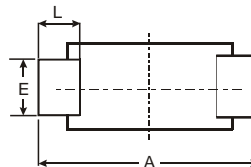
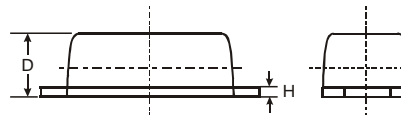
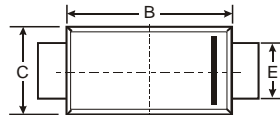
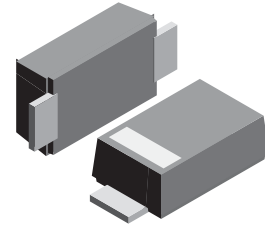
**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 0.7A**

### Features

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

### Mechanical Data

- Case: JEDEC SOD-123FL molded plastic body over passivated chip
- 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

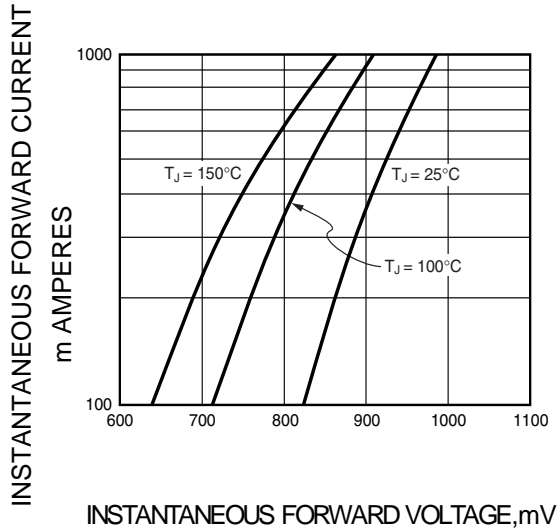
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	S07A	S07B	S07D	S07G	S07J	S07K	S07M	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at T <sub>A</sub> =65°C (NOTE 1)	I <sub>(AV)</sub>	0.7							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>	1.1							V
Maximum DC reverse current T <sub>A</sub> =25°C at rated DC blocking voltage T <sub>A</sub> =125°C	I <sub>R</sub>	10.0 50.0							μA
Typical junction capacitance (NOTE 2)	C <sub>J</sub>	15							pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub>	180							K/W
Maximum reverse recovery time (NOTE 5)	t <sub>rr</sub>	1.8							μS
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-50 to +150							°C

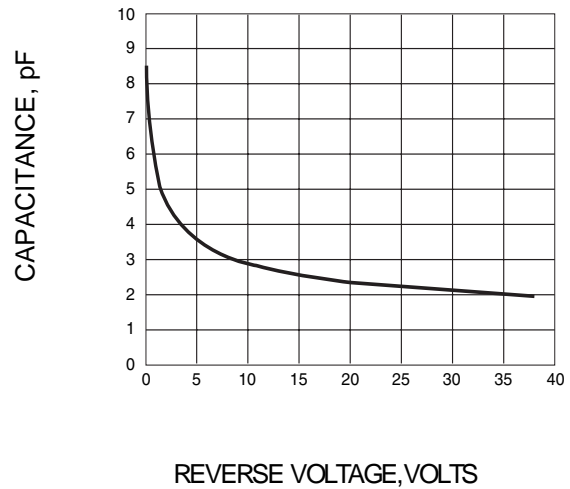
- Note:**
- 1.Averaged over any 20ms period.
  - 2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
  - 3.Thermal resistance from junction to ambient at 0.375" (9.5mm)lead length,P.C.B. mounted
  - 4.Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=0.25A.

## RATINGS AND CHARACTERISTIC CURVES S07A THRU S07M

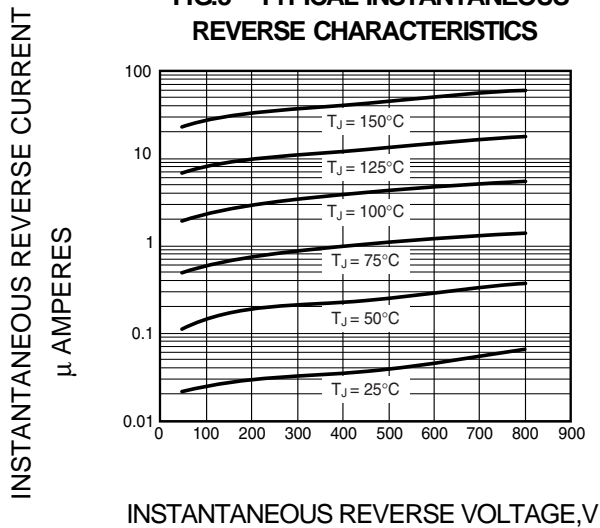
**FIG.1 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.2 – TYPICAL JUNCTION CAPACITANCE**



**FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS**



**FIG.4 – FORWARD DERATING CURVE**

