



## Features

- Average Forward Current:  $I_{F(AV)}=1A$
- Polarity: Color band denotes cathode



SOD-123FL

## Package Marking and Ordering Information

| Product ID    | Pack      | Marking | Qty(PCS) |
|---------------|-----------|---------|----------|
| HRB161MM-20TR | SOD-123FL | K12     | 3000     |



## Maxmim Ratings (Ta=25 unless otherwise noted)

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

| Type Number   | Limit      | Unit |
|---|------------|------|
| Maximum Recurrent Peak Reverse Voltage  | 20         | V    |
| Maximum RMS Voltage   | 14         | V    |
| Maximum DC Blocking Voltage   | 20         | V    |
| Maximum Average Forward Rectified Current<br>See Fig. 1   | 1.0        | A    |
| Peak Forward Surge Current, 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | 30         | A    |
| Maximum Instantaneous Forward Voltage at 1.0A   | 0.55       | V    |
| Maximum DC Reverse Current<br>Ta=25°C   | 0.2        | mA   |
| at Rated DC Blocking Voltage<br>Ta=100°C  | 10         | mA   |
| Typical Junction Capacitance (Note1)  | 110        | pF   |
| Typical Thermal Resistance R JA (Note 2)  | 80         | °C/W |
| Operating Temperature Range Tj  | -65 — +125 | °C   |
| Storage Temperature Range Tstg  | -65 — +150 | °C   |

### NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient.



## Typical Characteristics

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

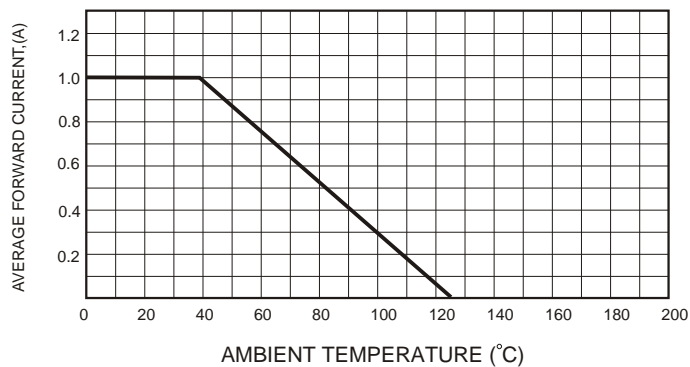


FIG.2-TYPICAL FORWARD CHARACTERISTICS

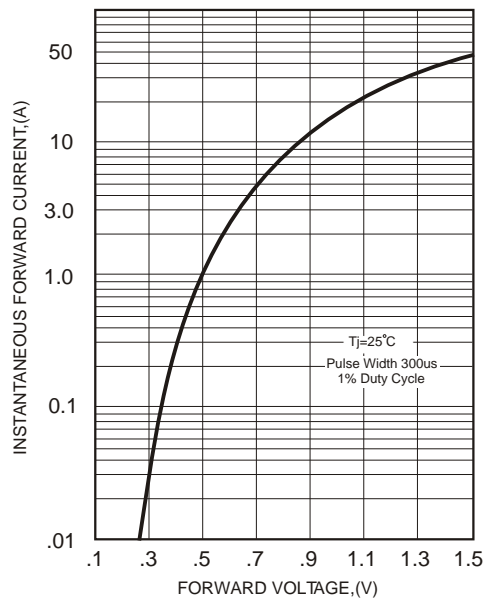


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

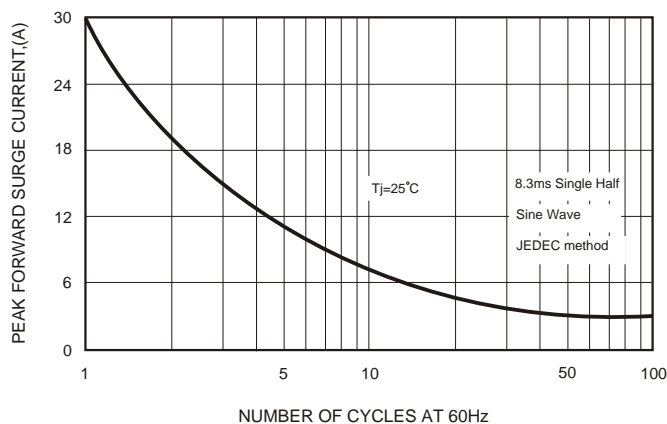


FIG.4-TYPICAL JUNCTION CAPACITANCE

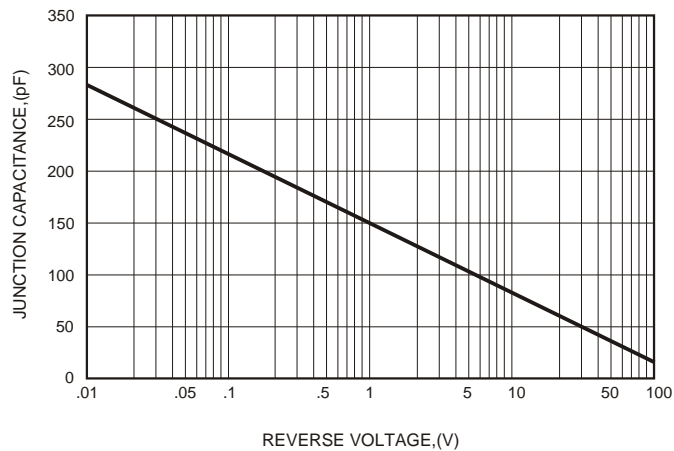
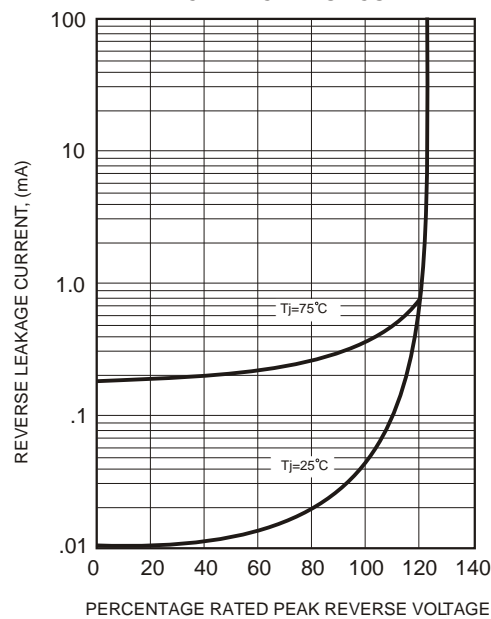
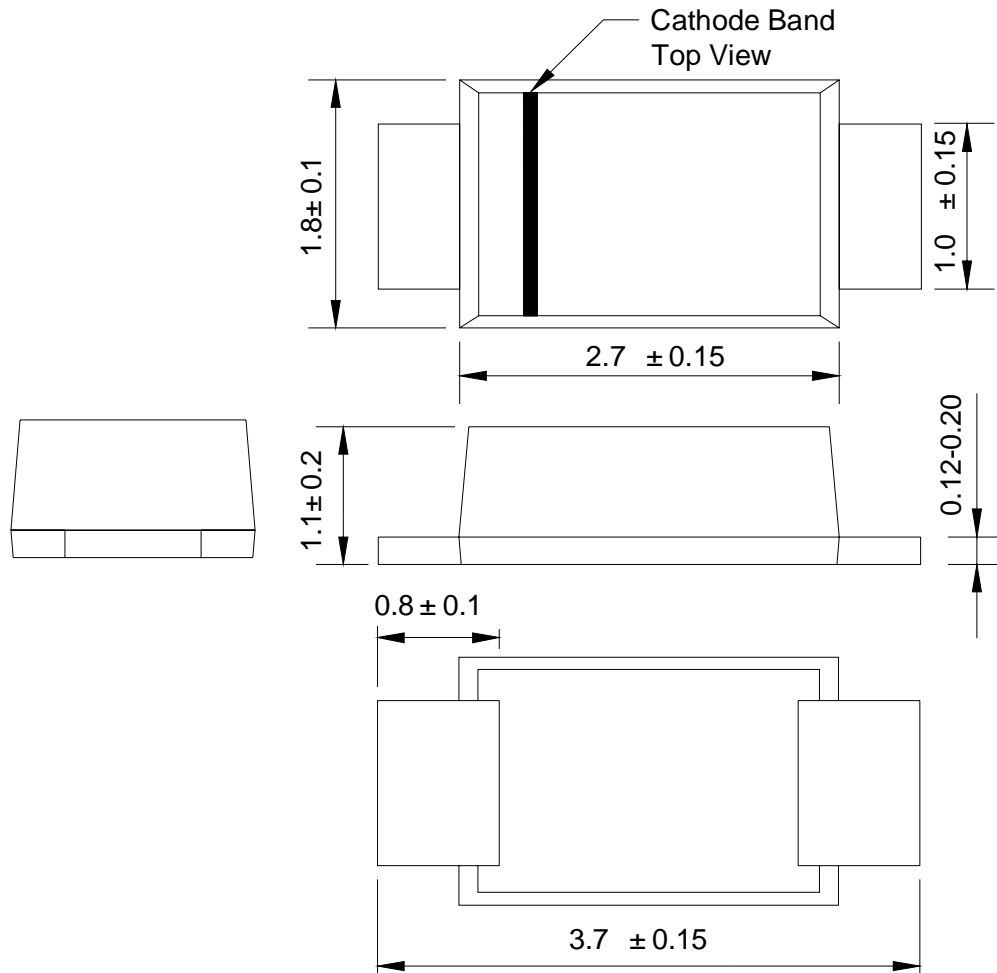


FIG.5 - TYPICAL REVERSE CHARACTERISTICS





## SOD-123FL Package Outline Dimensions





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