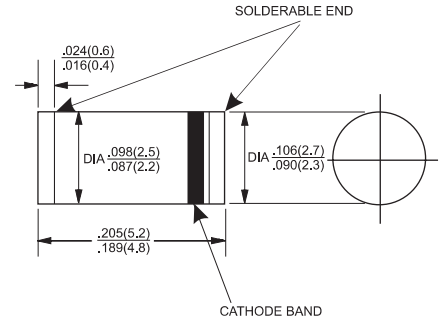




### MELF



### Features

- ✧ Glass Passivated Junction
- ✧ High Current Capability
- ✧ Low Forward Voltage Drop
- ✧ High Reliability and Low Leakage
- ✧ For Surface Mount Application
- ✧ Plastic Material - UL Flammability Classification Rating 94V-0

### Mechanical Data

- ✧ Case: MELF, Plastic
- ✧ Polarity: Cathode band
- ✧ Approx Weight: 0.25 grams
- ✧ Mounting Position: Any

Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Type Number  | Symbol          | DL 4001     | DL 4002 | DL 4003 | DL 4004 | DL 4005 | DL 4006 | DL 4007 | Unit             |
|--|-----------------|-------------|---------|---------|---------|---------|---------|---------|------------------|
| Peak Repetitive Reverse Voltage  | $V_{RRM}$       | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V                |
| Working Peak Reverse Voltage   | $V_{RWM}$       |             |         |         |         |         |         |         |                  |
| DC Blocking Voltage  | $V_R$           |             |         |         |         |         |         |         |                  |
| RMS Reverse Voltage  | $V_{R(RMS)}$    | 35          | 71      | 141     | 283     | 424     | 566     | 707     | V                |
| Maximum Average Forward Rectified Current @ Terminal Temp @ $T_T = 75^\circ\text{C}$             | $I_O$           | 1.0         |         |         |         |         |         |         | A                |
| Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on Rated Load (JEDEC Method) | $I_{FSM}$       | 30          |         |         |         |         |         |         | A                |
| Maximum Forward Voltage @ $I_F = 1.0\text{A}$  | $V_F$           | 1.1         |         |         |         |         |         |         | V                |
| Maximum dc Reverse Current @ $T_A = 25^\circ\text{C}$  | $I_R$           | 5.0         |         |         |         |         |         |         | $\mu\text{A}$    |
| Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$  |                 | 50          |         |         |         |         |         |         |                  |
| Typical Thermal Resistance, Junction to Ambient Air  | $R_{\theta JA}$ | 50          |         |         |         |         |         |         | K/W              |
| Typical Junction Capacitance (Note 1)  | $C_j$           | 15          |         |         |         |         |         |         | pF               |
| Operating and Storage Temperature Range  | $T_j, T_{STG}$  | -55 to +150 |         |         |         |         |         |         | $^\circ\text{C}$ |

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts.

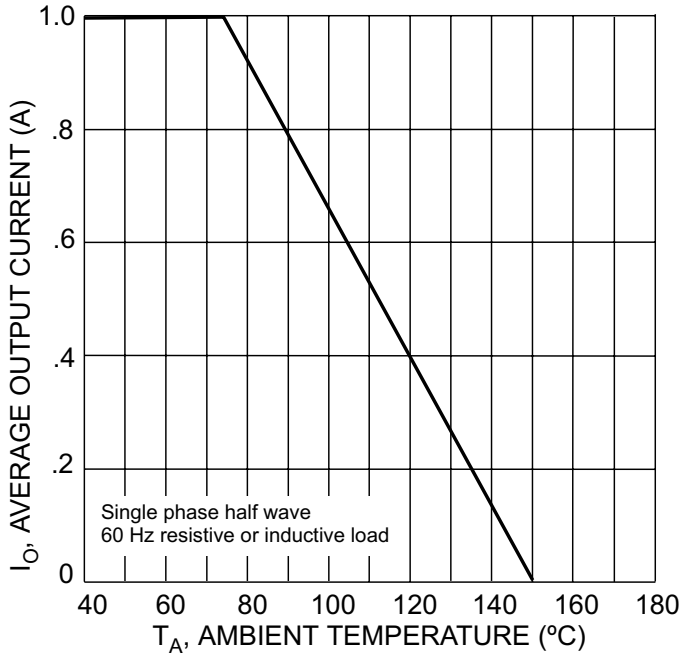


Fig. 1 Forward Current Derating Curve

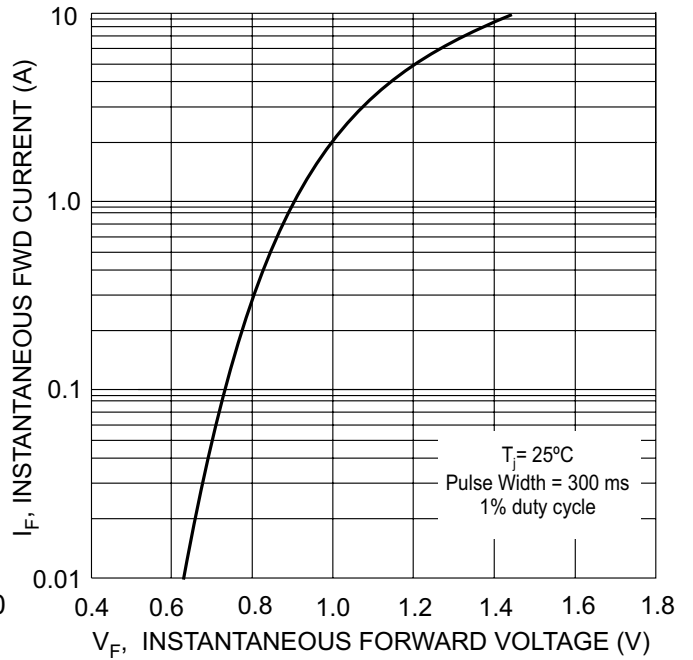


Fig. 2 Typical Forward Characteristics

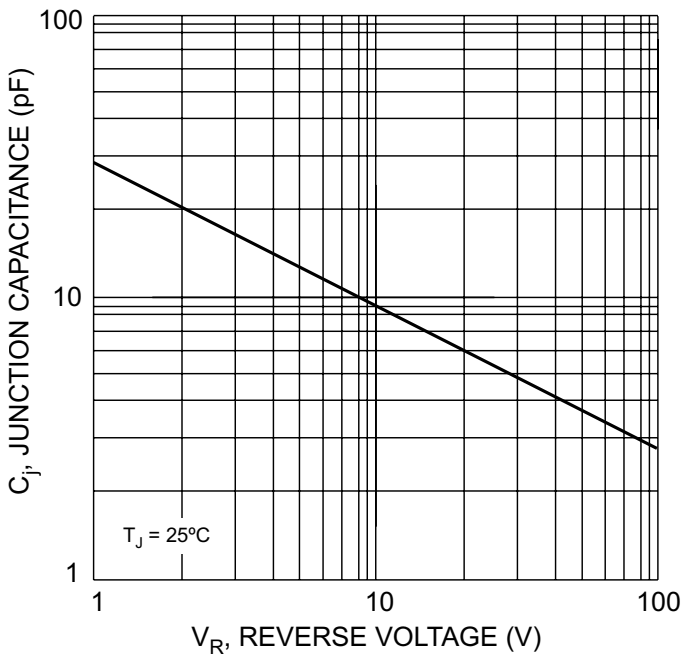


Fig. 3 Typical Junction Capacitance

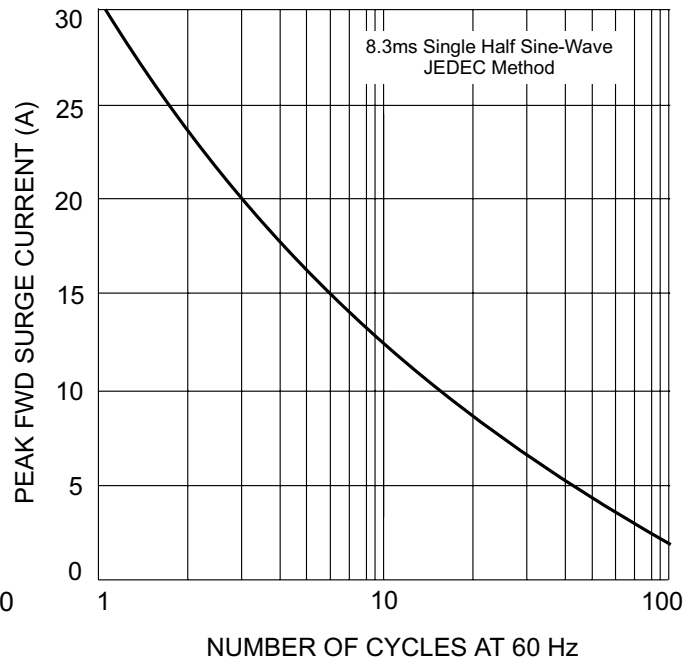


Fig. 4 Max Non-Repetitive Peak Fwd Surge Current