

**Standard Silicon Rectifiers**

**Reverse Voltage - 100 to 1000 V**

**Forward Current - 10 A**

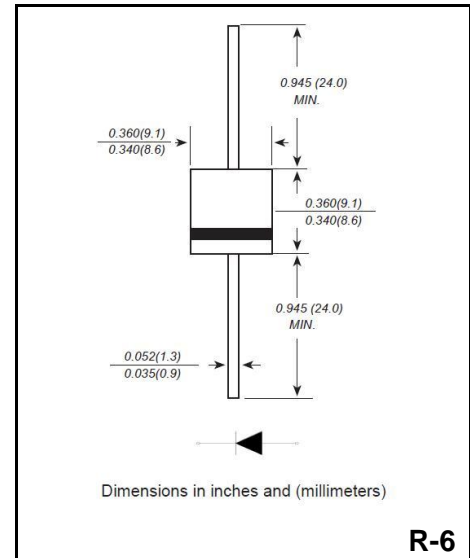


**FEATURES**

- ◆ For surface mounted applications
- ◆ Open Junction chip
- ◆ Low profile package
- ◆ Ideal for automated placement
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

**MECHANICAL DATA**

- ◆ Case: R-6
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 2.05g / 0.072oz



**Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified.

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

| Parameter   | Symbols         | 10A1        | 10A2 | 10A4 | 10A5 | 10A6 | 10A8 | 10A10 | Units              |
|---|-----------------|-------------|------|------|------|------|------|-------|--------------------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 100         | 200  | 400  | 500  | 600  | 800  | 1000  | V                  |
| Maximum RMS voltage   | $V_{RMS}$       | 70          | 140  | 280  | 350  | 420  | 560  | 700   | V                  |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 100         | 200  | 400  | 500  | 600  | 800  | 1000  | V                  |
| Maximum Average Forward Rectified Current at $T_c = 100\text{ }^\circ\text{C}$  | $I_{F(AV)}$     | 10.0        |      |      |      |      |      |       | A                  |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load  | $I_{FSM}$       | 400.0       |      |      |      |      |      |       | A                  |
| Maximum Instantaneous Forward Voltage at 10A  | $V_F$           | 1.10        |      |      |      |      |      |       | V                  |
| Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$<br>at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$ | $I_R$           | 10.0<br>500 |      |      |      |      |      |       | $\mu\text{A}$      |
| Typical Junction Capacitance <sup>(1)</sup>   | $C_j$           | 150.0       |      |      |      |      |      |       | pF                 |
| Typical Thermal Resistance <sup>(2)</sup>   | $R_{\theta JA}$ | 40.0        |      |      |      |      |      |       | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range   | $T_j, T_{stg}$  | -55 ~ +150  |      |      |      |      |      |       | $^\circ\text{C}$   |

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

**Ratings And Characteristic Curves**

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

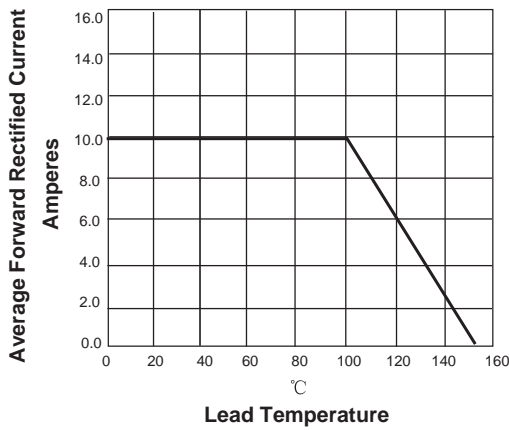


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

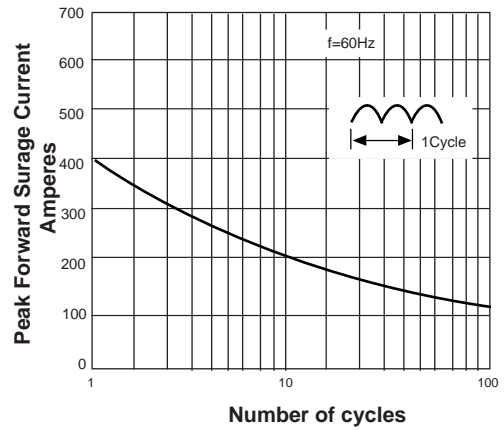


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

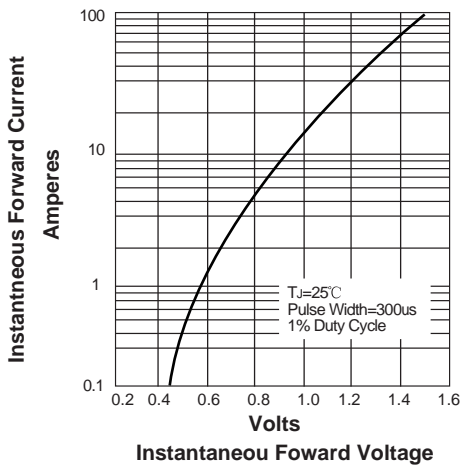
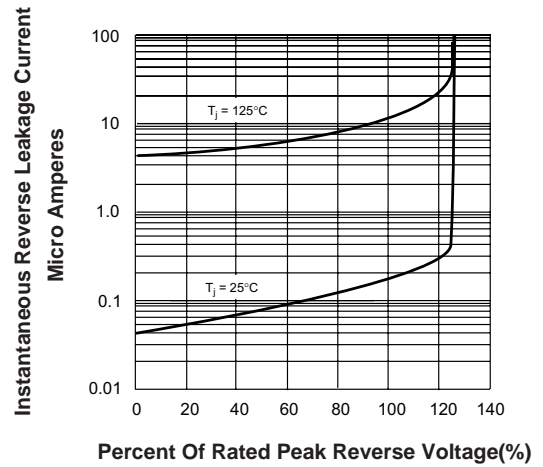
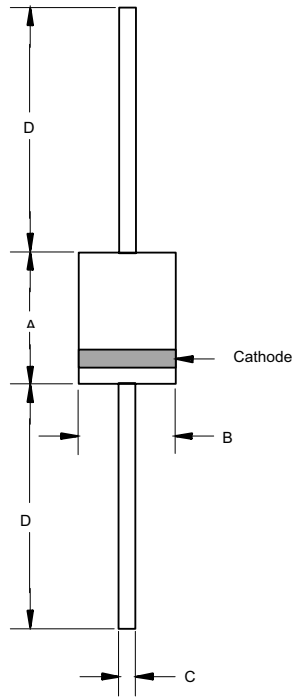


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Package Outline R-6



| DIMENSIONS |        |      |       |      |      |
|------------|--------|------|-------|------|------|
| DIM        | INCHES |      | MM    |      | NOTE |
|            | MIN    | MAX  | MIN   | MAX  |      |
| A          | .340   | .360 | 8.60  | 9.10 |      |
| B          | .340   | .360 | 8.60  | 9.10 |      |
| C          | .048   | .052 | 1.20  | 1.30 |      |
| D          | 1.000  | ---  | 25.40 | ---  |      |

Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|---------|---------------------|------------------|-------------------|
| R-6     | BOX                 | 500              | EIA-481-1         |