

## Standard Silicon Rectifiers

**Reverse Voltage - 100 to 1000 V**

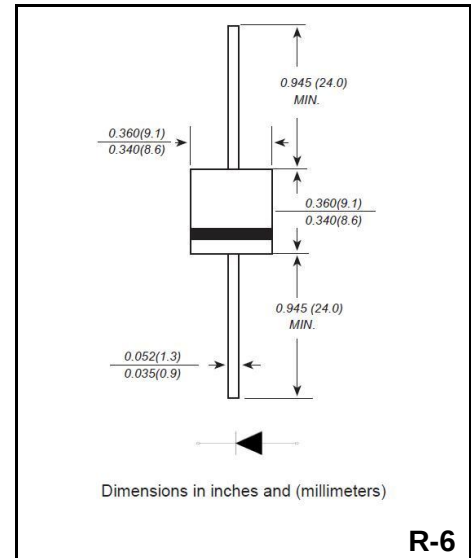
**Forward Current - 6 A**

### 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         | 6A1         | 6A2 | 6A4 | 6A5 | 6A6 | 6A8 | 6A10 | 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 $T_c = 100\text{ }^{\circ}\text{C}$                                                  | $I_{F(AV)}$     | 6.0         |     |     |     |     |     |      | A                    |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load                                                | $I_{FSM}$       | 200.0       |     |     |     |     |     |      | A                    |
| Maximum Instantaneous Forward Voltage at 6.0A                                                                                     | $V_F$           | 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>                                                                                       | $C_j$           | 100.0       |     |     |     |     |     |      | pF                   |
| Typical Thermal Resistance <sup>(2)</sup>                                                                                         | $R_{\theta JA}$ | 10.0        |     |     |     |     |     |      | $^{\circ}\text{C/W}$ |
| 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

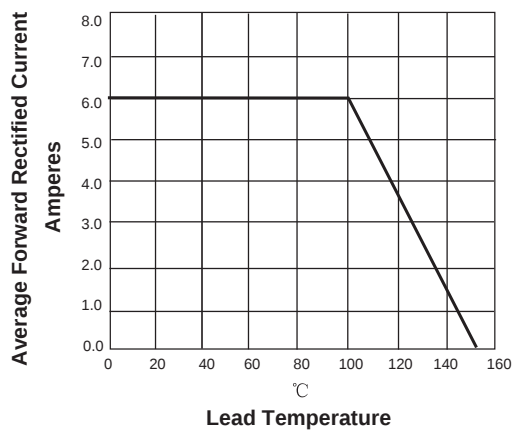


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

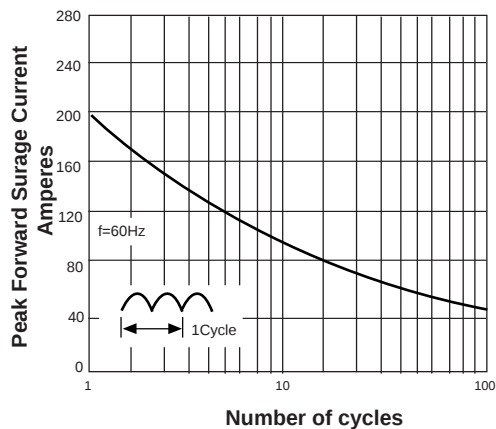


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

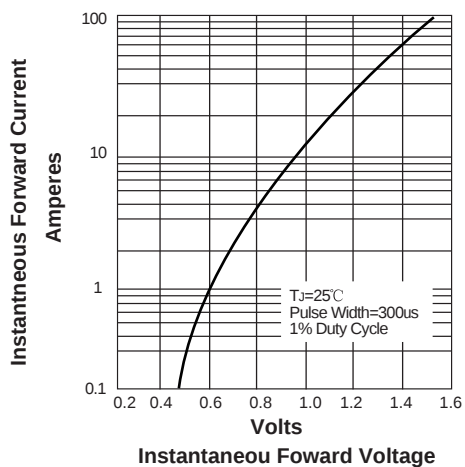
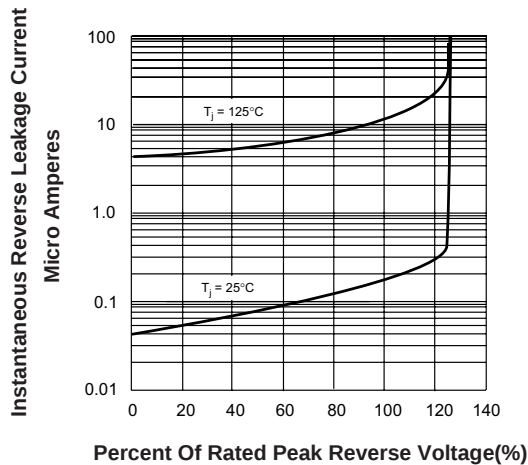
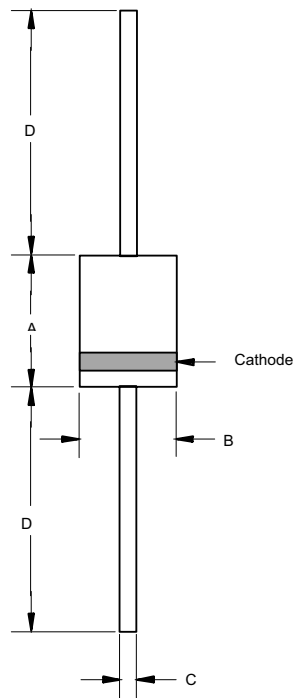


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



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         |