

Standard Silicon Rectifiers

Reverse Voltage - 100 to 1000 V

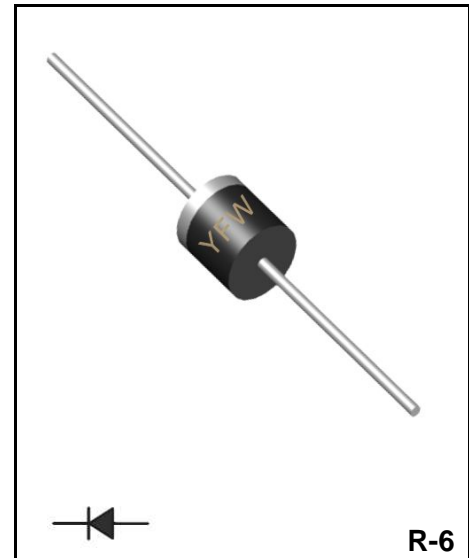
Forward Current - 8 A

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 | 8A1 | 8A2 | 8A4 | 8A5 | 8A6 | 8A8 | 8A10 | 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 $T_c = 100\text{ }^\circ\text{C}$ | $I_{F(AV)}$ | 8.0 | | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load | I_{FSM} | 300.0 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 8.0A | V_F | 1.10 | | | | | | | V |
| Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$ | I_R | 10.0 500 | | | | | | | μA |
| Typical Junction Capacitance ⁽¹⁾ | C_j | 110.0 | | | | | | | pF |
| Typical Thermal Resistance ⁽²⁾ | $R_{\theta JA}$ | 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

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

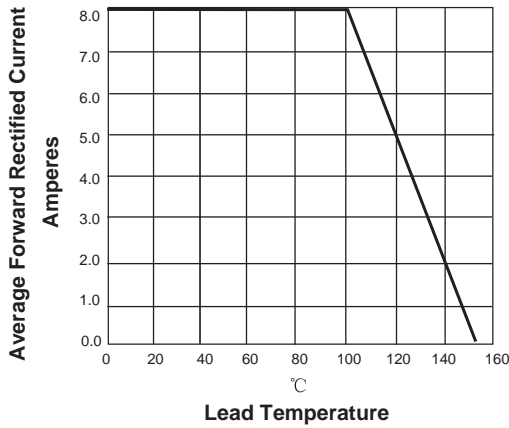


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

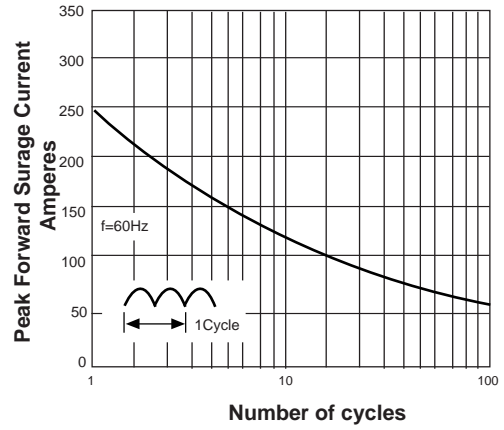


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

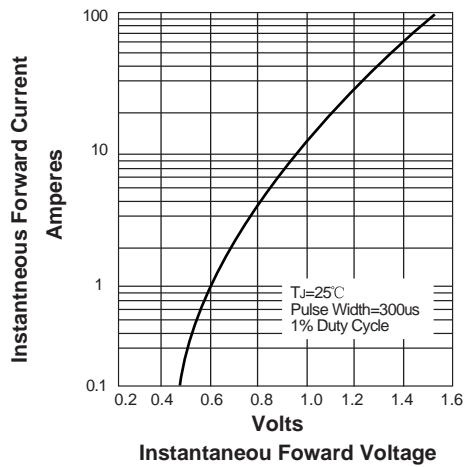
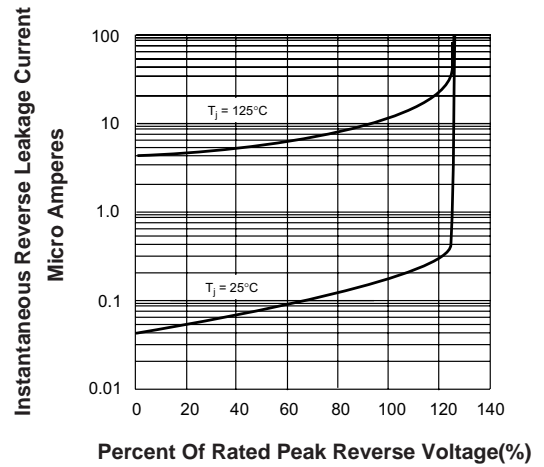


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Ordering information

| Package | Packing Description | Packing Quantity |
|---------|---------------------|---------------------------------|
| R-6 | ammo pack | 500PCS/Inner Box 5000PCS/Carton |

Package Dimensions

R-6

| Dim. | Millimeter(mm) | | INCHES | |
|------|----------------|------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 8.60 | 9.10 | 0.340 | 0.360 |
| B | 8.60 | 9.10 | 0.340 | 0.360 |
| C | 1.20 | 1.30 | 0.048 | 0.052 |
| D | 25.40 | - | 1.00 | - |

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