

Standard Silicon Rectifiers

Reverse Voltage - 100 to 1000 V

Forward Current - 2 A

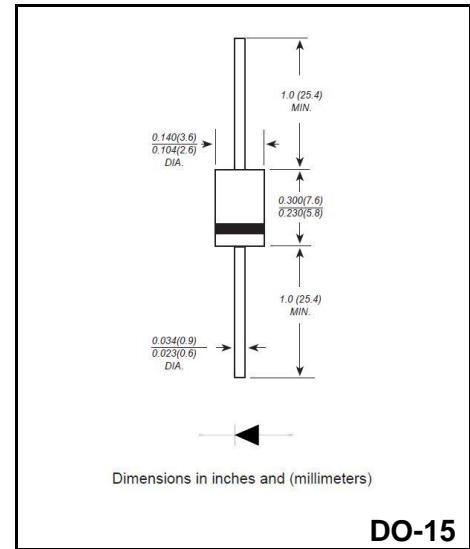


FEATURES

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Open Junction chip
- ◆ High forward surge current capability
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: DO-15
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.33g / 0.0116oz



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 | RL202 | RL203 | RL204 | RL205 | RL206 | RL207 | Units |
|---|-----------------|------------|-------|-------|-------|-------|-------|--------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current at $T_c = 100\text{ }^\circ\text{C}$ | $I_{F(AV)}$ | 2.0 | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load | I_{FSM} | 60.0 | | | | | | A |
| Maximum Instantaneous Forward Voltage at 1.0A | V_F | 1.1 | | | | | | 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 | 10 500 | | | | | | μA |
| Typical Junction Capacitance ⁽¹⁾ | C_j | 45.0 | | | | | | pF |
| Typical Thermal Resistance ⁽²⁾ | $R_{\theta JA}$ | 75.0 | | | | | | $^\circ\text{C/W}$ |
| 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

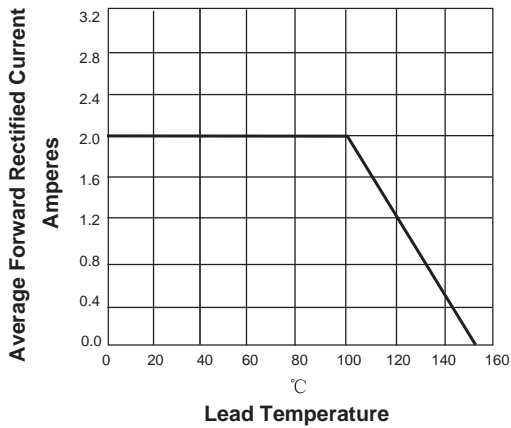


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

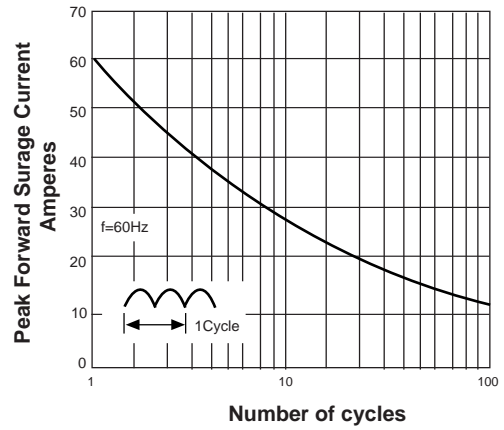


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

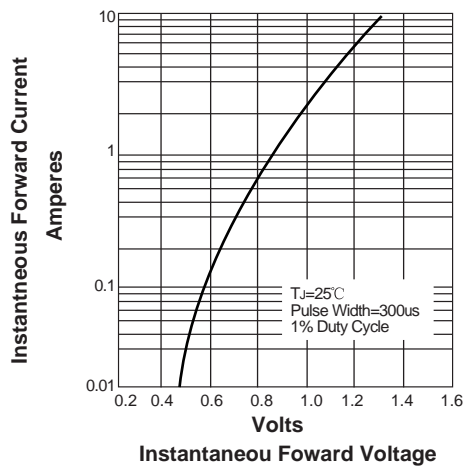
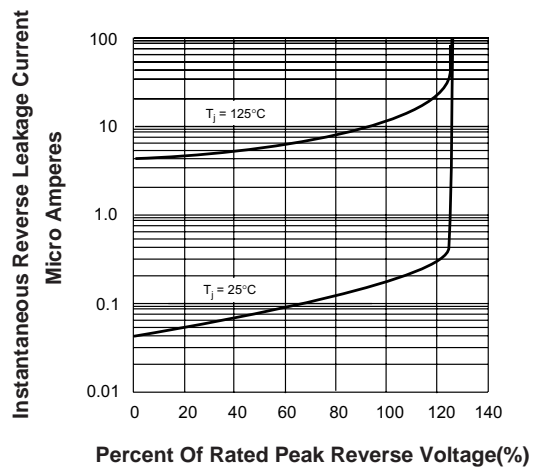


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Package Outline DO-15



| DIMENSIONS | | | | | |
|------------|--------|------|-------|------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | .230 | .300 | 5.8 | 7.6 | |
| B | .104 | .140 | 2.6 | 3.6 | |
| C | .028 | .034 | 0.71 | 0.86 | |
| D | 1.000 | --- | 25.40 | --- | |

Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|---------|---------------------|------------------|-------------------|
| DO-15 | BOX | 500/3000 | EIA-481-1 |