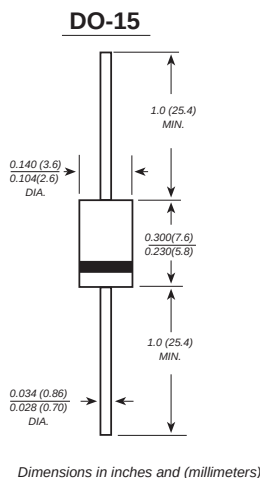


# RL201 THRU RL207

## GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts    Forward Current - 2.0 Amperes



### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** DO-15 molded plastic body

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.014 ounce, 0.40 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

|                                                                                                           | SYMBOLS         | RL<br>201   | RL<br>202 | RL<br>203 | RL<br>204 | RL<br>205 | RL<br>206 | RL<br>207 | UNITS              |
|-----------------------------------------------------------------------------------------------------------|-----------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------------|
| Maximum repetitive peak reverse voltage                                                                   | $V_{RRM}$       | 50          | 100       | 200       | 400       | 600       | 800       | 1000      | VOLTS              |
| Maximum RMS voltage                                                                                       | $V_{RMS}$       | 35          | 70        | 140       | 280       | 420       | 560       | 700       | VOLTS              |
| Maximum DC blocking voltage                                                                               | $V_{DC}$        | 50          | 100       | 200       | 400       | 600       | 800       | 1000      | VOLTS              |
| Maximum average forward rectified current<br>0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$         | $I_{AV}$        | 2.0         |           |           |           |           |           |           | Amps               |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load (JEDEC Method)    | $I_{FSM}$       | 70.0        |           |           |           |           |           |           | Amps               |
| Maximum instantaneous forward voltage at 2.0A                                                             | $V_F$           | 1.1         |           |           |           |           |           |           | Volts              |
| Maximum DC reverse current $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage $T_A=100^\circ\text{C}$ | $I_R$           | 5.0<br>50.0 |           |           |           |           |           |           | $\mu\text{A}$      |
| Typical junction capacitance (NOTE 1)                                                                     | $C_J$           | 20.0        |           |           |           |           |           |           | pF                 |
| Typical thermal resistance (NOTE 2)                                                                       | $R_{\theta JA}$ | 50.0        |           |           |           |           |           |           | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range                                                          | $T_J, T_{STG}$  | -65 to +175 |           |           |           |           |           |           | $^\circ\text{C}$   |

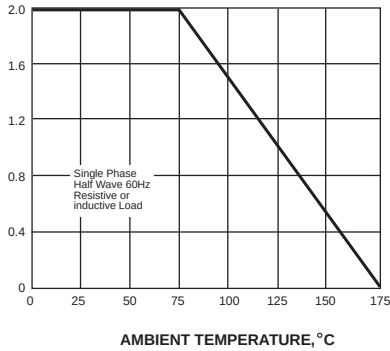
**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES RL201 THRU RL207

AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,  
AMPERES

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

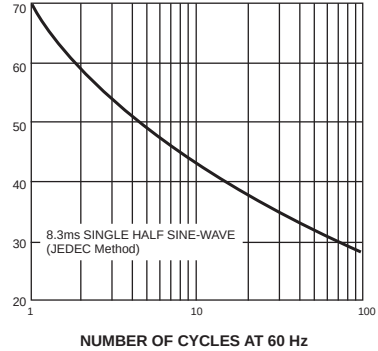


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

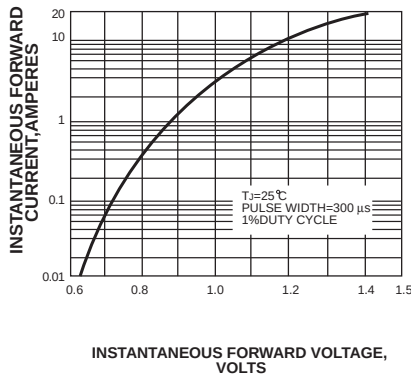


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

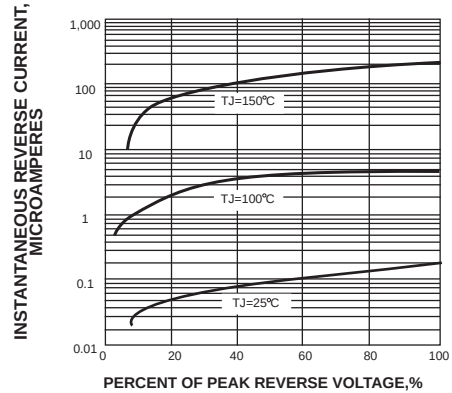
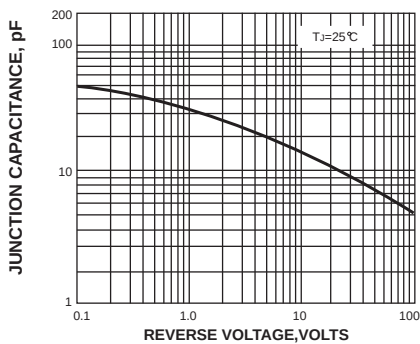


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,  
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

