



Glass Passivated Junction Rectifiers  
Reverse Voltage 50V to 1000V Forward Current 2.0 Amperes

# RL201G thru RL207G



### Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- The plastic material carries UL recognition 94V-0

### Mechanical Characteristics:

- Case: JEDEC DO-204AC(DO-15) molded plastic
- Terminals: Tin plated axial leads, solderable per MIL-STD-202E, method 208C
- Polarity: Color band denotes cathode
- Mounting position: Any
- High temperature soldering guaranteed : 250°C/10seconds, 0.375”(9.5mm) lead length at 5 lbs(2.3kg) tension
- Weight : 0.014oz., 0.39grams

### Maximum Ratings and Electrical Characteristics

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%)

| Parameter   | Symbol             | Type       |        |        |        |        |        |        | Units |
|---|--------------------|------------|--------|--------|--------|--------|--------|--------|-------|
|   |                    | RL201G     | RL202G | RL203G | RL204G | RL205G | RL206G | RL207G |       |
| Maximum Repetitive peak reverse voltage   | V <sub>RRM</sub>   | 50         | 100    | 200    | 400    | 600    | 800    | 1000   | V     |
| Maximum RMS voltage   | V <sub>RMS</sub>   | 35         | 70     | 140    | 280    | 420    | 560    | 700    | V     |
| Maximum DC blocking voltage   | V <sub>DC</sub>    | 50         | 100    | 200    | 400    | 600    | 800    | 1000   | V     |
| Maximum instantaneous forward voltage<br>I <sub>F</sub> =2A   | V <sub>F</sub>     | 1.1        |        |        |        |        |        |        | V     |
| Maximum average forward rectified current,<br>0.375”(9.5mm) lead length at T <sub>A</sub> =60°C         | I <sub>F(AV)</sub> | 2          |        |        |        |        |        |        | A     |
| Peak forward surge current @8.3ms single<br>half sine wave superimposed on rated<br>load (JEDEC method) | I <sub>FSM</sub>   | 55         |        |        |        |        |        |        | A     |
| Maximum DC reverse current<br>at rated DC blocking voltage  | I <sub>R</sub>     | 5          |        |        |        |        |        |        | µA    |
|   |                    | 100        |        |        |        |        |        |        |       |
| Typical junction capacitance (Note 1)   | C <sub>J</sub>     | 30         |        |        |        |        |        |        | pF    |
| Typical Thermal Resistance  | R <sub>θJA</sub>   | 40         |        |        |        |        |        |        | °C/W  |
| Storage temperature range   | T <sub>stg</sub>   | -55 ~ +150 |        |        |        |        |        |        | °C    |
| Operating junction temperature range  | T <sub>J</sub>     | -55 ~ +150 |        |        |        |        |        |        | °C    |

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0VDC



## Ratings and Characteristic Curves

FIG.1- TYPICAL FORWARD CHARACTERISTICS

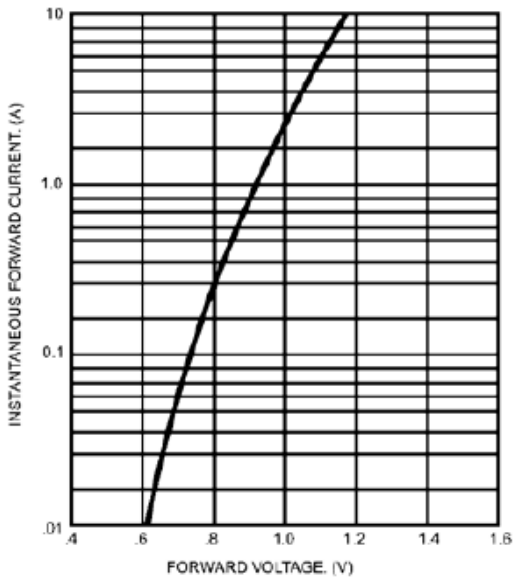


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

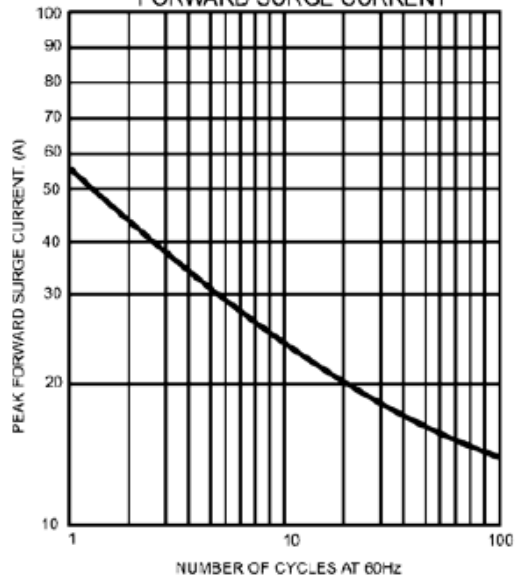


FIG.3- MAXIMUM FORWARD CURRENT DERATING CURVE

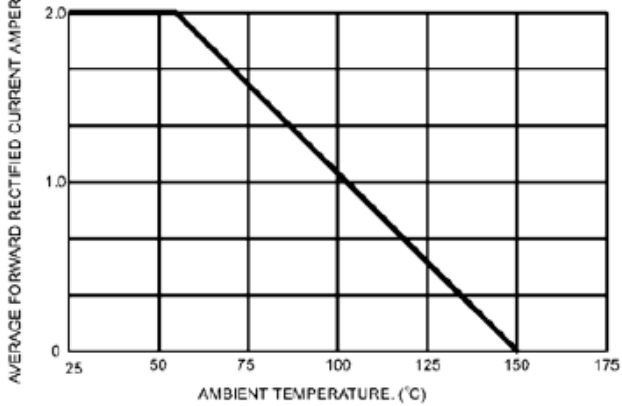
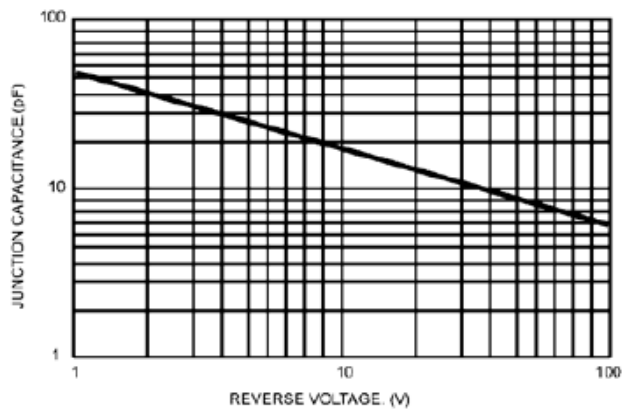
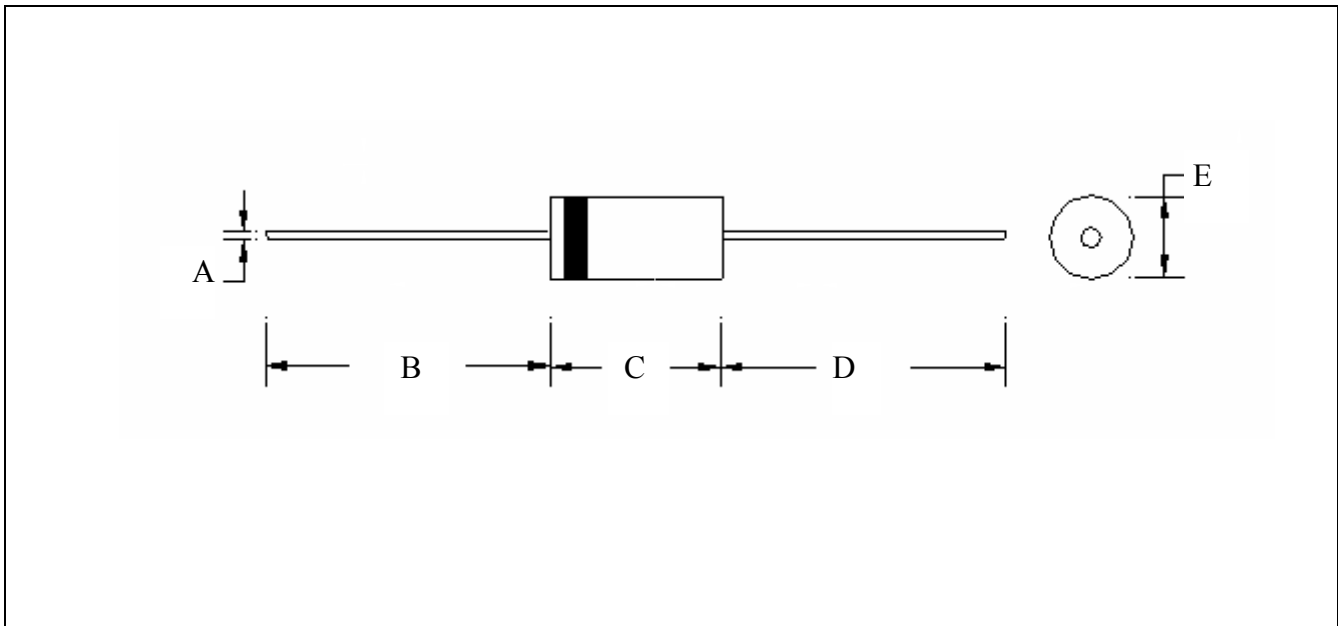


FIG.4- TYPICAL JUNCTION CAPACITANCE



**DO-204AC(DO-15) Dimension**



\*:Typical

| DIM | Inches |        | Millimeters |       | DIM | Inches |        | Millimeters |       |
|-----|--------|--------|-------------|-------|-----|--------|--------|-------------|-------|
|     | Min.   | Max.   | Min.        | Max.  |     | Min.   | Max.   | Min.        | Max.  |
| A   | φ0.028 | φ0.034 | φ0.70       | φ0.90 | D   | 1.000  | -      | 25.40       | -     |
| B   | 1.000  | -      | 25.40       | -     | E   | φ0.104 | φ0.140 | φ2.60       | φ3.60 |
| C   | 0.2300 | 0.3000 | 5.80        | 7.60  |     |        |        |             |       |

Notes : 1.Controlling dimension : millimeters.  
 2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.  
 3.If there is any question with packing specification or packing method, please contact your local CYStek sales office.

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