

## PLASTIC SILICON RECTIFIERS

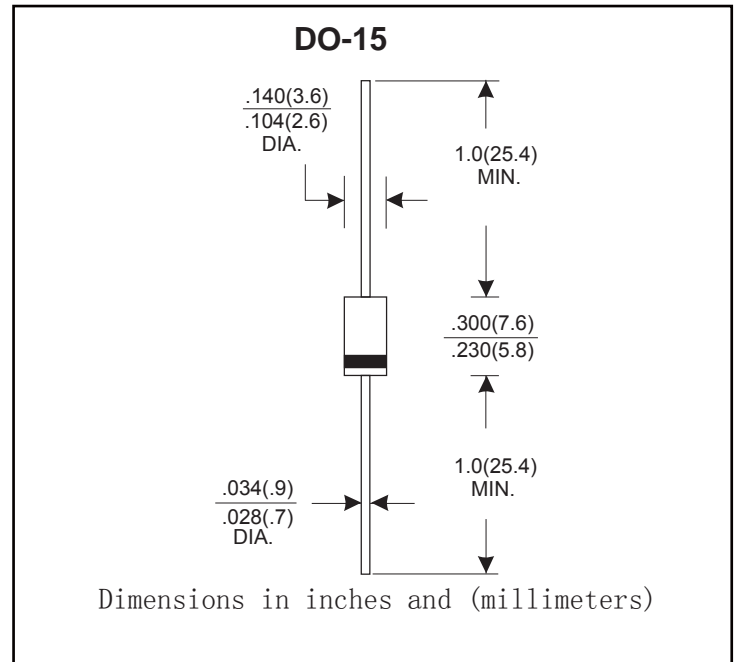
VOLTAGE RANGE: 50 --- 1000 V CURRENT: 1.5 A

### FEATURES

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- High surge current capability
- 2.0 ampere operation at TL=75 °C with no thermal runaway
- Low reverse leakage
- High temperature soldering guaranteed:260 °C/10 seconds at Terminals
- Component in accordance to RoHs 2002/95/EC and WEEE 2002/96/EC

### MECHANICAL DATA

- Case:JEDEC DO-15 molded plastic body
- Polarity:Color band denotes cathode end
- Mounting Position:Any



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

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

|  | Symbols            | RL201       | RL202 | RL203 | RL204 | RL205 | RL206 | RL207 | Units |
|--|--------------------|-------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$          | 50          | 100   | 300   | 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   | 300   | 400   | 600   | 800   | 1000  | Volts |
| Maximum average Forward Rectified Current<br>0.375"(9.5mm)lead length at TA=75°C             | $I_{(AV)}$         | 1.5         |       |       |       |       |       |       | Amps  |
| Peak Forward Surge Current(8.3ms)half sine-wave<br>cuperimposed on rated load (JEDEC method) | $I_{FSM}$          | 70.0        |       |       |       |       |       |       | Amps  |
| Maximum Instantaneous Forward Voltage at 2.0 A   | $V_F$              | 1.1         |       |       |       |       |       |       | Volts |
| Maximum Reverse current<br>at rated DC Blocking Voltage                                      | $T_A=25\text{ C}$  | $I_R$       |       |       |       |       |       |       | A     |
|  | $T_A=100\text{ C}$ |             |       |       |       |       |       |       |       |
| Typical Thermal Resistance(Note 2)   | $R_{\theta JA}$    | 40.0        |       |       |       |       |       |       | C/W   |
| Typical Junction Capacitance(Note 1)   | $C_J$              | 20.0        |       |       |       |       |       |       | PF    |
| Operating and Storage Temperature Range  | $T_J$              | -65 to +175 |       |       |       |       |       |       | C     |
|  | $T_{STG}$          |             |       |       |       |       |       |       |       |

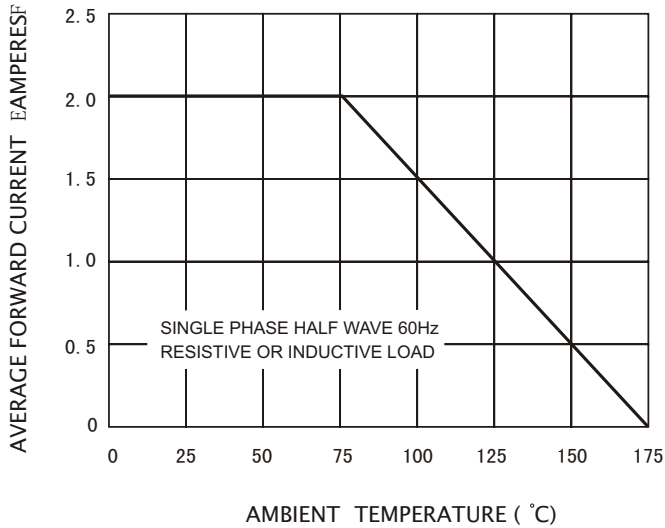
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal Resistance from Junction to Ambient. 375"(9.5mm) lead length.

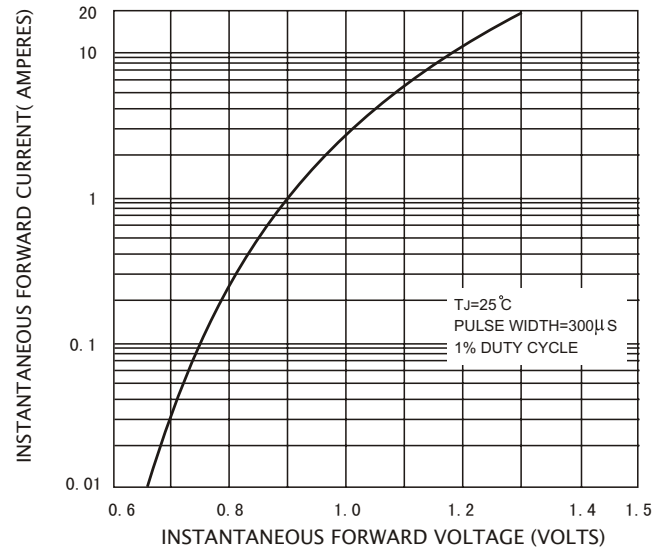


# RATINGS AND CHARACTERISTIC CURVES

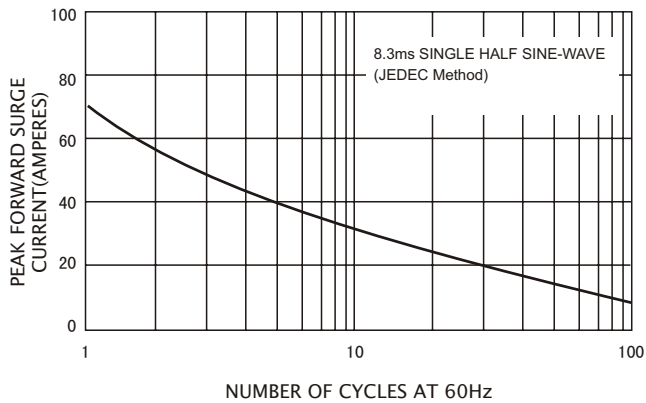
**FIG.1 – FORWARD DERATING CURVE**



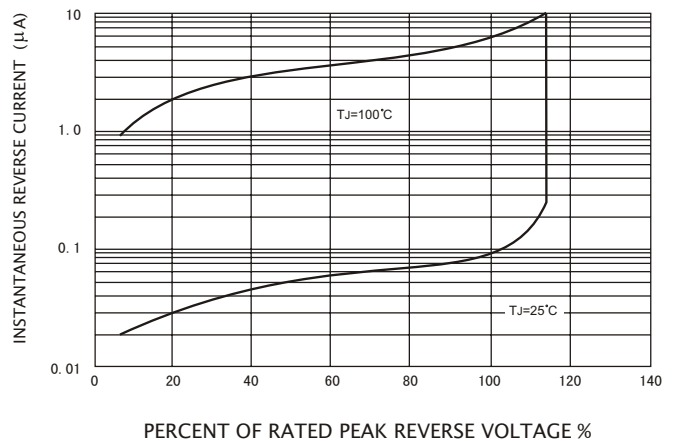
**FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.3 – MAXIMUM PEAK NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.4-TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

