



AXIAL SILASTIC GUARD JUNCTION STANDARD RECTIFIER

RL251 THRU RL257

**VOLTAGE RANGE
CURRENT**

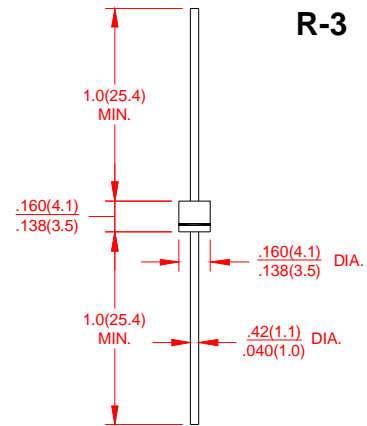
**50 to 1000 Volts
2.5 Amperes**

FEATURES

- Low coat construction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 secods/.375”(9.5mm)lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.014 ounce, 0.39 grams



Dimensions in inches and (millimeters)

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 derate current by 20%

| | SYMBOLS | RL251 | RL252 | RL253 | RL254 | RL255 | RL256 | RL257 | UNIT |
|---|---------------------------|-------------|-------|-------|-------|-------|-------|-------|---------------------------|
| 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 0.375”(9.5mm) lead length at $T_A=50^\circ\text{C}$ | $I_{(AV)}$ | 2.5 | | | | | | | Amps |
| Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) | I_{FSM} | 30 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage @2.5A | V_F | 1.0 | | | | | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage per element | $T_A = 25^\circ\text{C}$ | 5.0 | | | | | | | μA |
| | $T_A = 100^\circ\text{C}$ | 50 | | | | | | | |
| Maximum Full Load Reverse Current, full cycle average 0.375”(9.5mm)lead length at $T_I=75^\circ\text{C}$ | $I_{R(AV)}$ | 70 | | | | | | | μA |
| Typical Junction Capacitance (Note 1) | C_J | 30 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 40 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating Junction Temperature Range | T_J | -55 to +150 | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

Notes:

1. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.
2. Thermal Resistance from junction to Ambient at .375”(9.5mm)lead length, P.C.board mounted.



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RATING AND CHARACTERISTIC CURVES RL251 Thru RL257

