# RL151 THRU RL157

## *GENERAL PURPOSE PLASTIC SILICON RECTIFIER*

康 比 電 子
HORNBY ELECTRONIC

***REVERSE VOLTAGE:*** **50 to 1000 VOLTS**

***FORWARD CURRENT:*** **1.5 AMPERE**

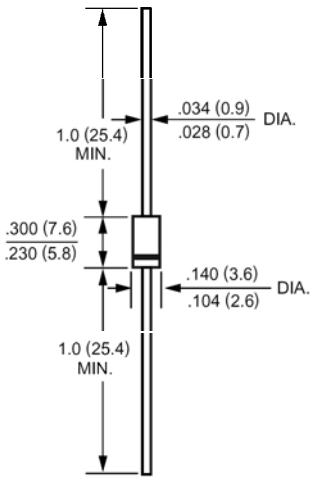
### *FEATURES*

· Plastic package has Underwriters Laboratory Flammability Classification 94V-O ctilizing Flame Retardant Epoxy Molding Compound.

· 2.0 ampere operation at $T_A$=75℃ with no thermal runaway.

· Exceeds environmental standards of MIL-S-19500/228

**DO-15**




**Dimensions in inches and (millimeters)**

### *MECHANICAL DATA*

Case: Molded plastic, DO-15

Epoxy: UL 94V-O rate flame retardant

Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.015ounce, 0.4gram

## *Maximum Ratings and Electrical Characteristics*

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60$H_Z$, resistive or inductive load.

For capacitive load, derate current by 20%.

| | Symbols | *RL151* | *RL152* | *RL153* | *RL154* | *RL155* | *RL156* | *RL157* | Units |
|---|---|---|---|---|---|---|---|---|---|
| **Maximum Recurrent 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 .375"(9.5mm) Lead Length at $T_A$=75℃** | $I_{(AV)}$ | 1.5 | | | | | | | **Amp** |
| **Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)** | $I_{FSM}$ | 60 | | | | | | | **Amp** |
| **Maximum Forward Voltage at 1.5A DC and 25℃** | $V_F$ | 1.1 | | | | | | | **Volts** |
| **Maximum Reverse Current at $T_A$=25℃** | $I_R$ | 5.0 | | | | | | | **uAmp** |
| **at Rated DC Blocking Voltage $T_A$=100℃** | | 50 | | | | | | | |
| **Typical Junction Capacitance (Note 1)** | $C_J$ | 20 | | | | | | | **pF** |
| **Typical Thermal Resistance (Note 2)** | $R_{\theta JA}$ | 50 | | | | | | | **℃/W** |
| **Operating Junction Temperature Range** | $T_J$ | -55 to +150 | | | | | | | **℃** |
| **Storage Temperature Range** | Tstg | -55 to +150 | | | | | | | **℃** |

**NOTES:**

1- Measured at 1 $MH_Z$ and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance Junction to Ambient and form junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted.

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### *RATINGS AND CHARACTERISTIC CURVES*

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

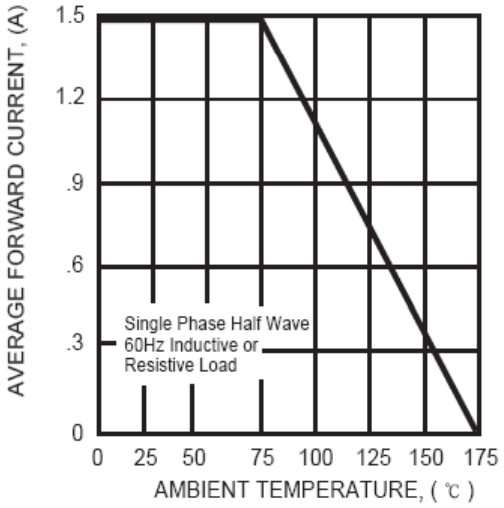


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

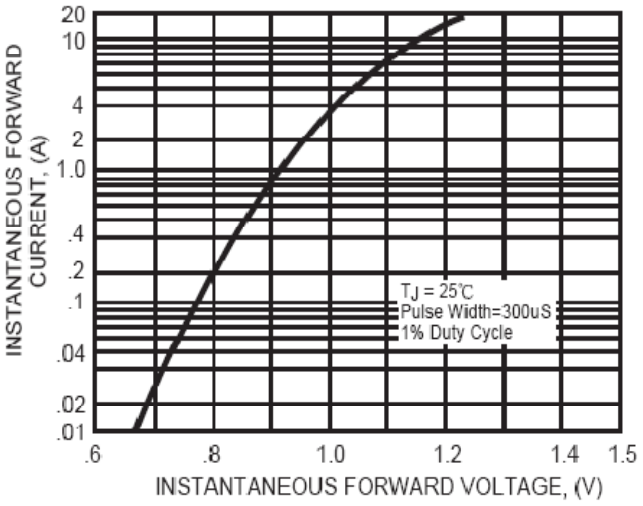


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

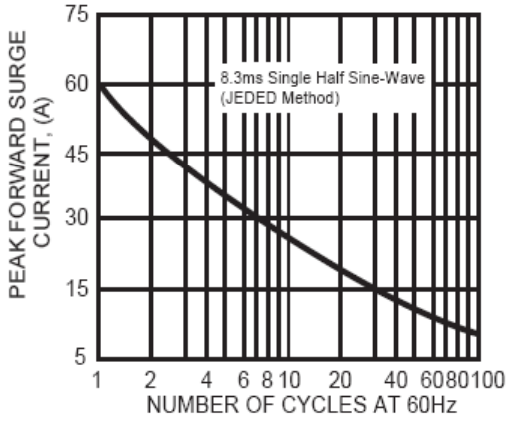


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

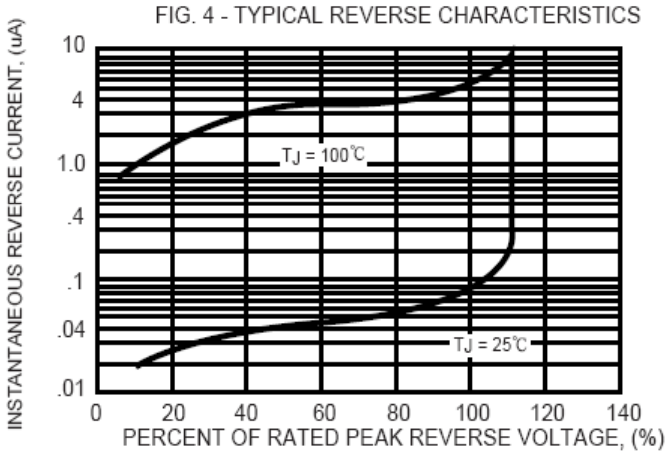


FIG. 5 - TYPICAL JUNCTION CAPACITANCE