



SEMICONDUCTOR

# RL151 THRU RL157

## GENERAL PURPOSE PLASTIC RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.5Amperes

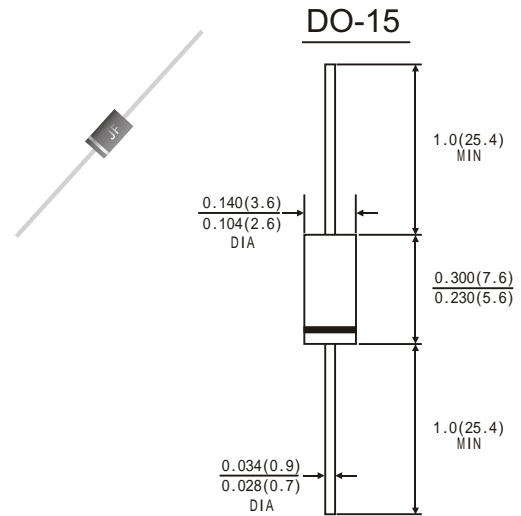
SILICON RECTIFIER

### FEATURES

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- High surge current capability
- 1.5 amperes operation at  $T_L=75\text{ C}$  with no thermal runaway
- Low reverse leakage
- Low forward voltage drop
- Construction utilizes void-free molded plastic technique
- High temperature soldering guaranteed: 250 C/10 seconds,0.375"(9.5mm) lead length,5lbs.(2.3kg)tension

### MECHANICAL DATA

- Case: JEDEC DO-15 molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.014ounce, 0.33 gram



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 by 20%.)

	Symbols	RL 151	RL 152	RL 153	RL 154	RL 155	RL 156	RL 157	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average Forward Rectified Current 0.375"(9.5mm)lead length at T <sub>A</sub> =75 C	I <sub>(AV)</sub>	1.5							Amp
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	60.0							Amps
Maximum Instantaneous Forward Voltage at 1.5 A	V <sub>F</sub>	1.1							Volts
Maximum Reverse current at rated DC Blocking Voltage	I <sub>R</sub>	T <sub>a</sub> =25°C							μA
		T <sub>a</sub> =100°C							
Typical Thermal resistance (Note 2)	R <sub>θJA</sub>	50.0							°C/W
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	20.0							pF
Operating and Storage temperature Range	T <sub>J</sub> T <sub>STG</sub>	-50 to+175							°C

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

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

# RATINGS AND CHARACTERISTIC CURVES RL151 THRU RL157

FIG.1-FORWARD CURRENT DERATING CURVE

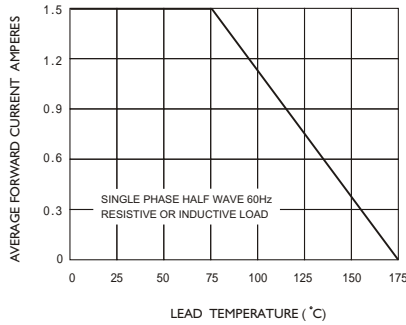


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

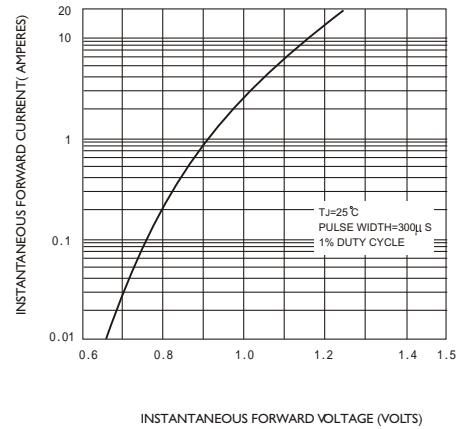


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

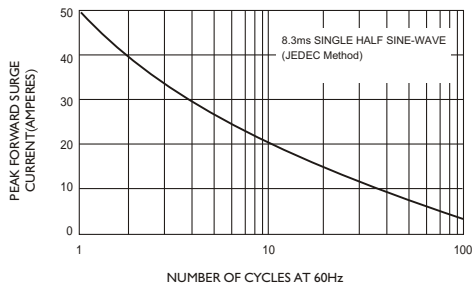


FIG.4-TYPICAL REVERSE CHARACTERISTICS

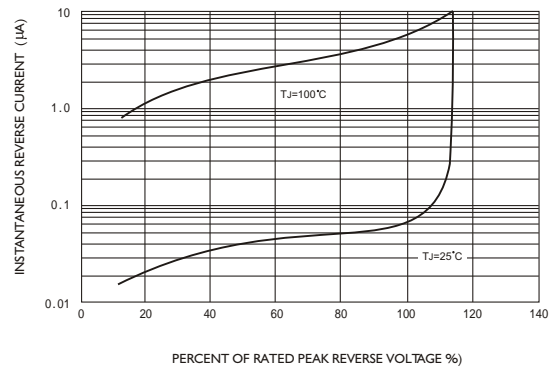


FIG.5-TYPICAL JUNCTION CAPACITANCE

