



SEMICONDUCTOR

RL251 THRU RL257

GENERAL PURPOSE PLASTIC RECTIFIER

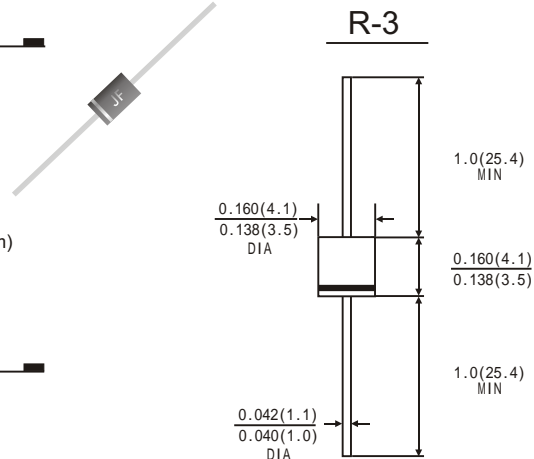
Reverse Voltage - 50 to 1000 Volts

Forward Current -2.5Amperes

SILICON RECTIFIER

FEATURES

- The plastic package has Underwrites Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- High surge current capability
- 2.5A operation at $T_L=75^\circ\text{C}$ with no thermal runaway
- Low reverse leakage
- High temperature soldering guaranteed: 250 C/10 seconds,0.375"(9.5mm) lead length,5lbs.(2.3kg)tension



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: R-3 molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.021ounce, 0.60 gram

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 251	RL 252	RL 253	RL 254	RL 255	RL 256	RL 257	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	300	400	600	200	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	210	280	420	140	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	300	400	600	200	1000	Volts
Maximum average Forward Rectified Current 0.375"(9.5mm)lead length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	2.5							Amps
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150.0							Amps
Maximum Instantaneous Forward Voltage at $I_{FM}=2.5\text{ A}$, $T_A=25^\circ\text{C}$	V_F	1.1							Volts
Maximum Reverse current at rated DC Blocking Voltage	I_R	$T_A=25^\circ\text{C}$							μA
		$T_A=100^\circ\text{C}$							
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	35.0							$^\circ\text{C/W}$
Typical Junction Capacitance(Note 1)	C_J	35.0							pF
Operating and Storage temperature Range	T_J	-50 to+175							$^\circ\text{C}$
	T_{STG}								

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 RL251 THRU RL257

FIG. 1-FORWARD CURRENT DERATING CURVE

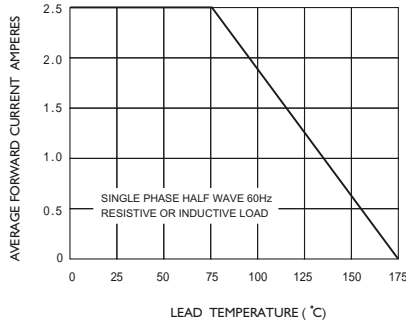


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

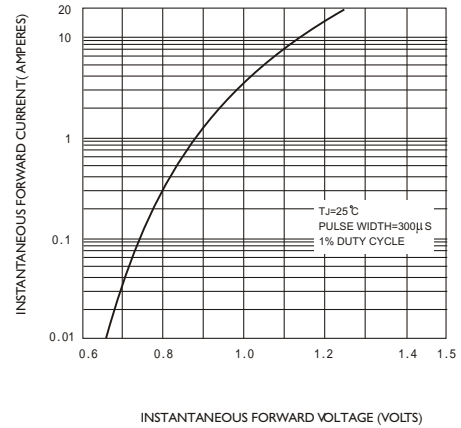


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

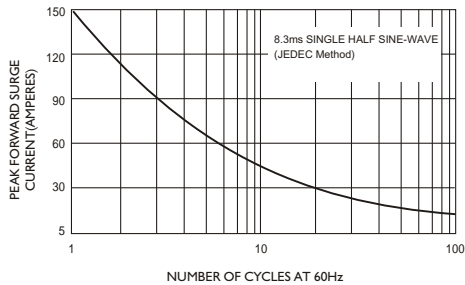


FIG.4-TYPICAL REVERSE CHARACTERISTICS

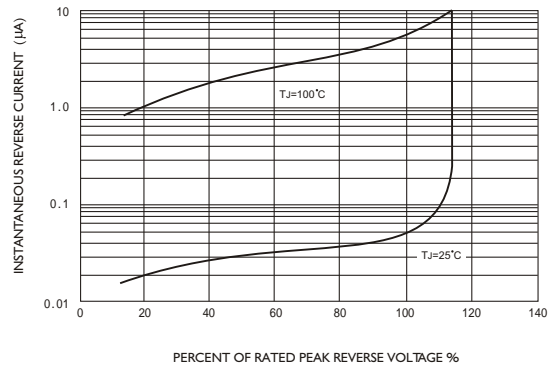


FIG.5-TYPICAL JUNCTION CAPACITANCE

