



# RL251G THRU RL257G

## GLASS PASSIVATED JUNCTION RECTIFIER

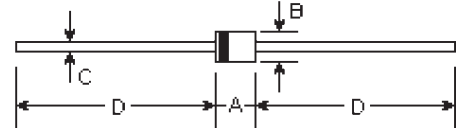
Reverse Voltage - 50 to 1000 Volts

Forward Current - 2.5 Amperes

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame retardant epoxy molding compound
- 2.5 ampere operation at  $T_A=55^\circ\text{C}$  with no thermal runaway
- Glass passivated junction in R-3 package

**R-3**



### Mechanical Data

- **Case:** Molded plastic, R-3
- **Terminals:** Axial leads, solderable per MIL-STD-202, method 208
- **Polarity:** Color band denotes cathode
- **Mounting Position:** Any
- **Weight:** 0.021 ounce, 0.605 gram

DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	0.138	0.161	3.50	4.10	
B	0.138	0.161	3.50	4.10	φ
C	0.040	0.043	1.0	1.10	φ
D	1.000	-	25.40	-	

### Maximum Ratings and Electrical Characteristics

Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.

	Symbols	RL 251G	RL 252G	RL 253G	RL 254G	RL 255G	RL 256G	RL 257G	Units
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 $T_A=55^\circ\text{C}$	$I_{(AV)}$	2.5							Amps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	$I_{FSM}$	70.0							Amps
Maximum forward voltage at 2.0A	$V_F$	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage	$I_R$	$T_J=25^\circ\text{C}$ 5.0 $T_J=100^\circ\text{C}$ 300.0							$\mu\text{A}$
Typical junction capacitance (Note 1)	$C_J$	40.0							$\mu\text{F}$
Typical thermal resistance (Note 2)	$R_{\theta JA}$	25.0							$^\circ\text{C/W}$
Operating and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

**Notes:**

(1) Measured at 1.0MHz and applied reverse voltage of 4.0 VDC

(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

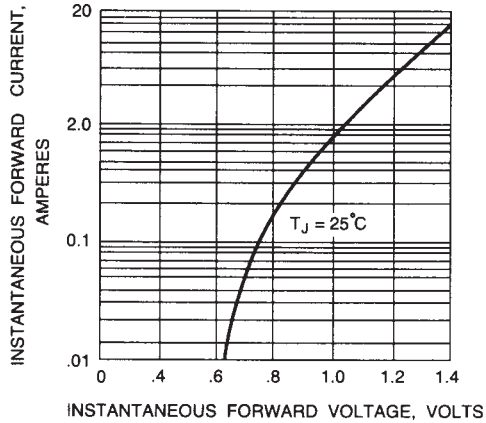


Fig. 1 - TYPICAL FORWARD CHARACTERISTICS

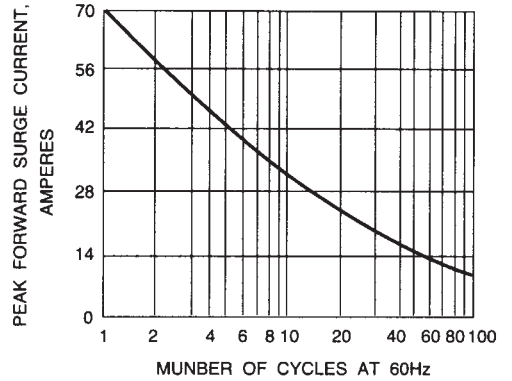


Fig. 2 - PEAK FORWARD SURGE CURRENT

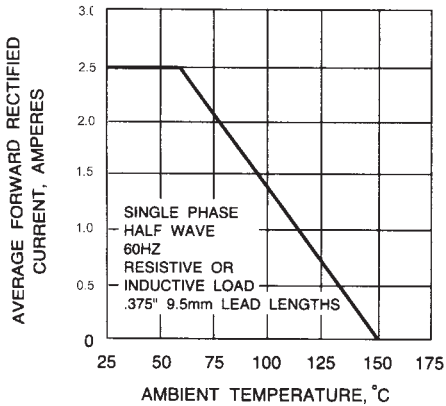


Fig. 3 - FORWARD CURRENT DERATING CURVE

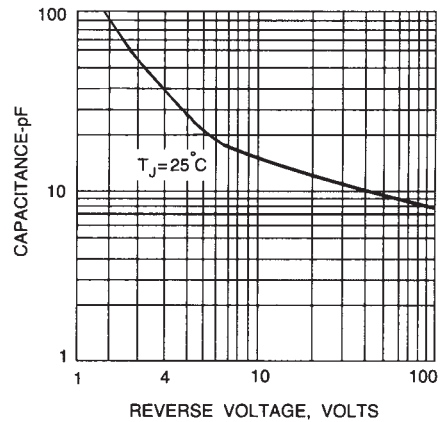


Fig. 4 - TYPICAL JUNCTION CAPACITANCE