



RL251G THRU RL257G

GLASS PASSIVATED JUNCTION RECTIFIER

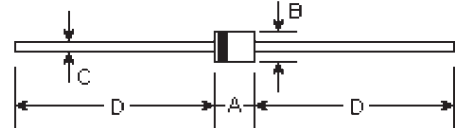
Reverse Voltage - 50 to 1000 Volts

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

DIMENSIONS					
DIM	inches		mm		Note
	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°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 $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	I_R	5.0 300.0							μA
Typical junction capacitance (Note 1)	C_J	40.0							μF
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

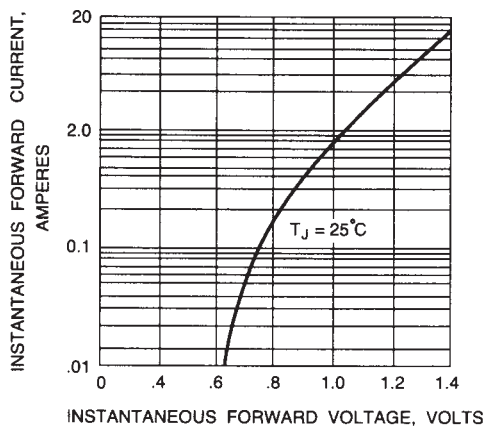


Fig. 1 - TYPICAL FORWARD CHARACTERISTICS

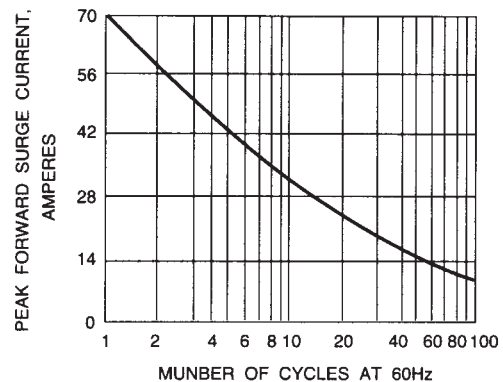


Fig. 2 - PEAK FORWARD SURGE CURRENT

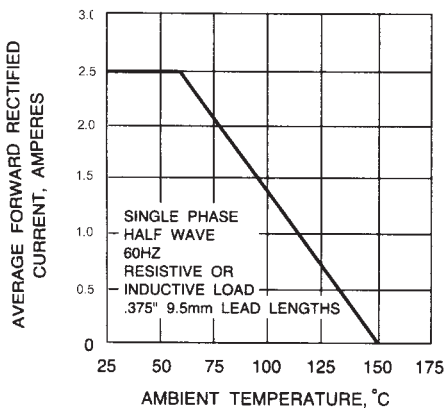


Fig. 3 - FORWARD CURRENT DERATING CURVE

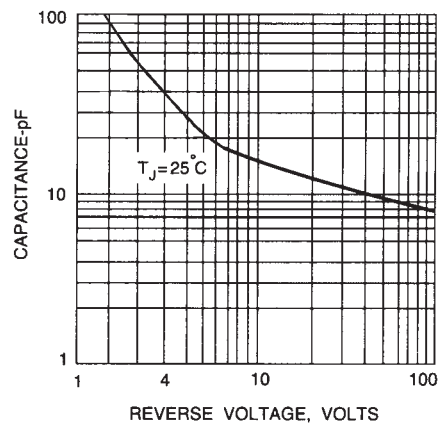


Fig. 4 - TYPICAL JUNCTION CAPACITANCE