

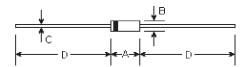
# **RL101FG THRU RL107FG**

GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER
Reverse Voltage - 50 to 1000 Volts
Forward Current - 1.0 Ampere

#### **Features**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame retardant epoxy molding compound
- Glass passivated junction
- 1.0 ampere operation at T<sub>A</sub>=55 ℃ with no thermal runaway
- Fast switching for high efficiency

## A-405



### **Mechanical Data**

Case: Molded plastic, A-405
 Terminals: Axial leads, solderable per MIL-STD-202, method 208
 Polarity: Color band denotes cathode

Mounting Position: Any
 Weight: 0.008 ounce, 0.235 gram

DIMENSIONS										
DIM	inches		m	Note						
	Min.	Max.	Min.	Max.	Note					
Α	0.165	0.205	4.2	5.2						
В	0.079	0.106	2.0	2.7	ф					
С	0.020	0.024	0.5	0.6	ф					
D	1.000	-	25.40	-						

# **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 current by 20%.

	Symbols	RL 101FG	RL 102FG	RL 103FG	RL 104FG	RL 105FG	RL 106FG	RL 107FG	Units
Maximum repetitive 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 $\rm T_A$ =55 $^{\circ}\rm C$	I <sub>(AV)</sub>	1.0							Amp
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I <sub>FSM</sub>	30.0							Amps
Maximum forward voltage at 1.0A	V <sub>F</sub>	1.30							Volts
Maximum DC reverse current T_=25°C at rated DC blocking voltage T_=100°C	I <sub>R</sub>	5.0 100.0						μА	
Maximum reverse recovery time (Note 1)	T <sub>rr</sub>	150 250 500					00	nS	
Typical junction capacitance (Note 2)	C <sub>J</sub>	10.0							ρF
Typical thermal resistance (Note 3)	R <sub>⊕JA</sub>	67.0						°C/W	
Operating and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150						$^{\circ}$ C	

#### Notes:

- (1) Reverse recovery test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>R</sub>=0.25A
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0 volts
- (3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

### **RATINGS AND CHARACTERISTIC CURVES**

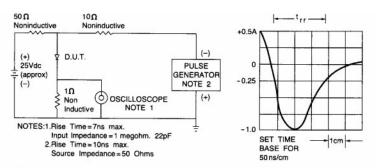


Fig. 1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

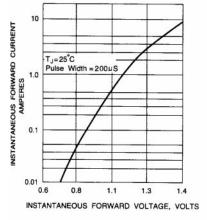


Fig. 2-FORWARD CHARACTERISTICS

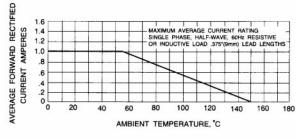


Fig. 3 - FORWARD CURRENT DERATING CURVE

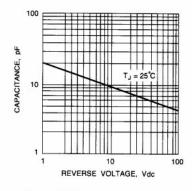


Fig. 4-TYPICAL JUNCTION CAPACITANCE

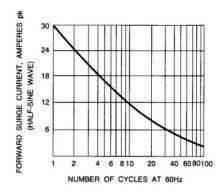


Fig. 5 - PEAK FORWARD SURGE CURRENT