

# RL101F THRU RL107F

## FAST RECOVERY RECTIFIER

**REVERSE VOLTAGE:** 50 to 1000 VOLTS

**FORWARD CURRENT:** 1.0 AMPERE

<http://www.njzrg.com>

### FEATURES

- High current capability
- 1.0 ampere operation at  $T_A=55$  with no thermal runaway.
- Fast switching for high efficiency
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage.

### MECHANICAL DATA

Case: Molded plastic, A-405

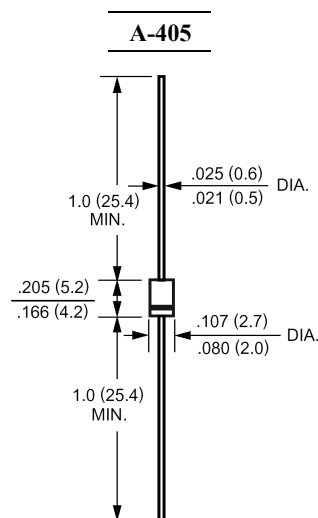
Epoxy: UL 94V-O rate flame retardant

Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.008ounce, 0.22gram



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Ratings at 25 ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	RL101F	RL102F	RL103F	RL104F	RL105F	RL106F	RL107F	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 .375"(9.5mm) Lead Length at T <sub>A</sub> =55	I <sub>(AV)</sub>	1.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30							Amp
Maximum Forward Voltage at 1.0A DC and 25	V <sub>F</sub>	1.3							Volts
Maximum Reverse Current at T <sub>A</sub> =25 at Rated DC Blocking Voltage T <sub>A</sub> =100	I <sub>R</sub>	5.0 500							uAmp
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	12							pF
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	67							/W
Maximum Reverse Recovery Time (Note 3)	T <sub>RR</sub>	150				250	500		nS
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-55 to +150							

### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance From Junction to Ambient 0.375"(9.5mm) lead length P.C.B. Mounted.

3- Reverse Recovery Test Conditions :  $I_F=.5A$  ,  $I_R=1A$  ,  $I_{RR}=.25A$ .

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**RATINGS AND CHARACTERISTIC CURVES**

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FIG.1- MAXIMUM TYPICAL FORWARD CURRENT DERATING CURVE

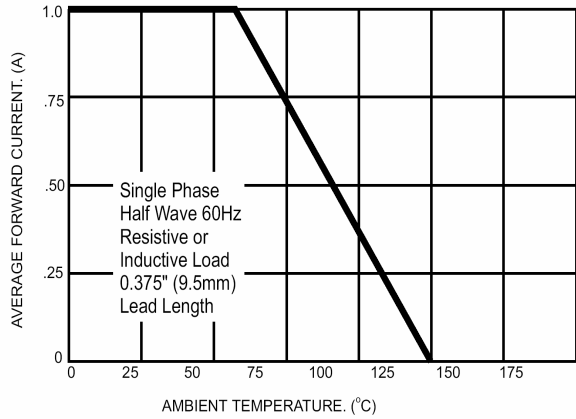


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

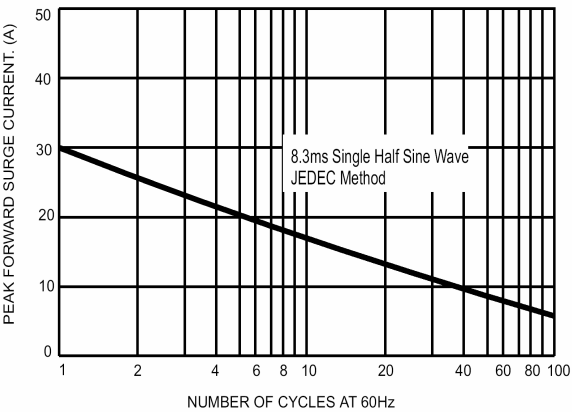


FIG.3- TYPICAL FORWARD CHARACTERISTICS

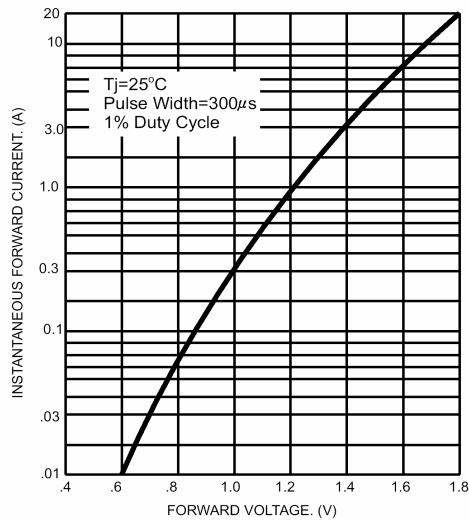


FIG.4- TYPICAL JUNCTION CAPACITANCE

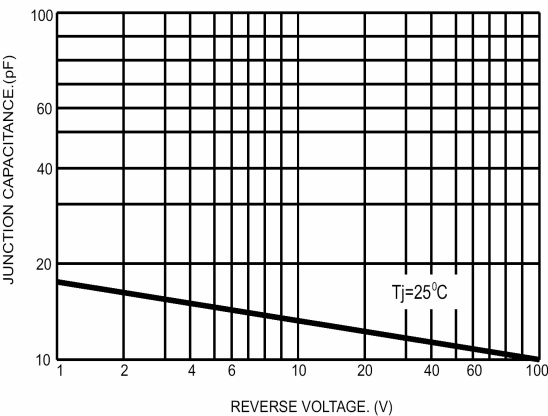


FIG.5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

