RL101 THRU RL107

General Purpose Plastic Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 1.0 Ampere

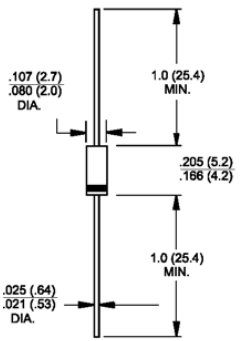
Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Φ 0.6mm leads
- T_J is 150°C (Max.) and T_{STG} is 175°C (Max.) with PI glue

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
- High temperature soldering guaranteed: 250°C/10 seconds .375" (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Weight: 0.008 ounce, 0.23 gram

A-405



Dimensions in inches and (millimeters)

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%

Parameter	Symbols	RL101	RL102	RL103	RL104	RL105	RL106	RL107	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 @T_A=50°C	$I_{(AV)}$	1.0							Amp
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage @ 1.0A	V_F	1.1							Volts
Maximum DC reverse current @T_A=25°C at rated DC blocking voltage @T_A=100°C	I_R	5.0 50							uA
Maximum full load reverse current full cycle average, 0.375" (9.5mm) lead length @T_A=75°C	$I_{R(AV)}$	30							uA
Typical junction capacitance (Note 1)	C_J	15							pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	50							°C/W
Operating junction temperature range	T_J	-55 to +125							°C
Storage temperature range	T_{STG}	-55 to +150							°C

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.
2. Thermal Resistance from Junction to Ambient .375" (9.5mm) Lead Length

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

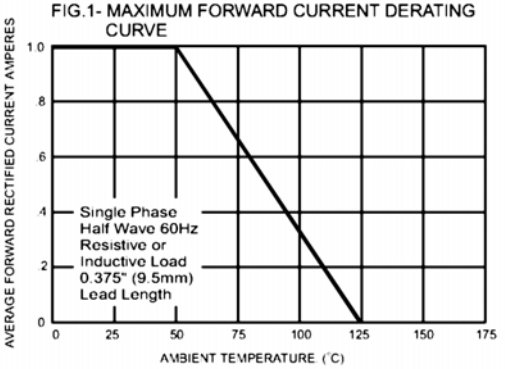


FIG.2- TYPICAL FORWARD CHARACTERISTICS

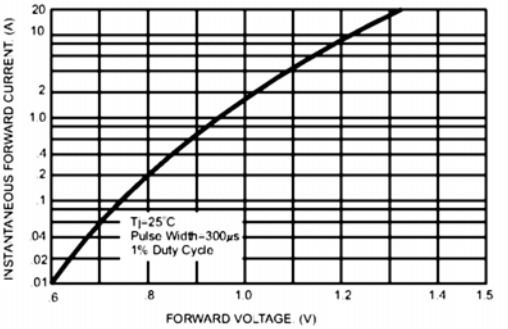


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

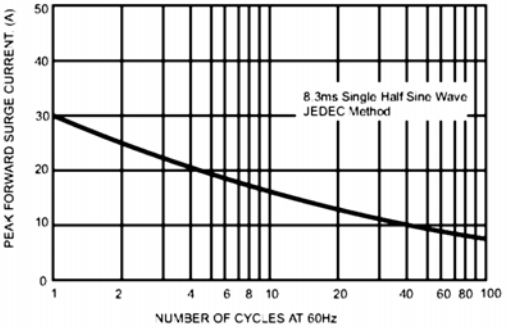


FIG.4- TYPICAL JUNCTION CAPACITANCE

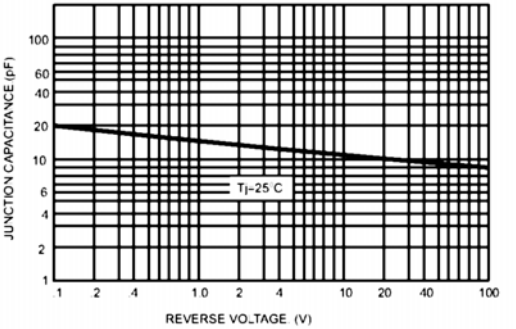


FIG.5- TYPICAL REVERSE CHARACTERISTICS