

RL101FG THRU RL107FG

FAST RECOVERY GLASS PASSIVATED RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

FEATURES

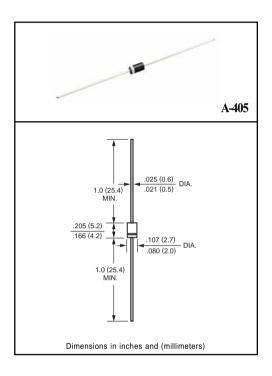
- * High reliability
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * Glass passivated junction
- * High switching capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.33 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

| RATINGS | SYMBOL | RL101FG | RL102FG | RL103FG | RL104FG | RL105FG | RL106FG | RL107FG | UNITS |
|---|----------|--------------|---------|---------|---------|---------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current .375" (9.5mm) lead length at TA = 50°C | lo | 1.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | 30 | | | | | | Amps | |
| Typical Junction Capacitance (Note 2) | CJ | 15 | | | | | | pF | |
| Operating and Storage Temperature Range | TJ, TSTG | -65 to + 175 | | | | | | | ٥C |

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | RL101FG RL102FG RL103FG RL104FG | RL105FG | RL106FG RL107FG | UNITS | |
|--|--------|---------------------------------|---------|-----------------|-------|--|
| Maximum Instantaneous Forward Voltage at 1.0A DC | VF | 1.3 | | | | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C | la la | 5.0 | | | | |
| Maximum Full Load Reverse Current Full Cycle Average, .375" (9.5mm) lead length at TL = 55°C | - IR | 100 | | | | |
| Maximum Reverse Recovery Time (Note 1) | trr | 150 | 250 | 500 | nSec | |

NOTES: 1. Test Conditions: IF = 0.5A, IR = -1.0A, IRR = -0.25A

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RATING AND CHARACTERISTIC CURVES (RL101FG THRU RL107FG)

FIG. 1 - TYPICAL FORWARD CURRENT **DERATING CURVE** 1.0 AVERAGE FORWARD CURRENT, (A) .8 .6 .4 Single Phase Half Wave 60Hz .2 Resistive or Inductive Load 0 0 25 50 75 100 125 150 AMBIENT TEMPERATURE, (°C)

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

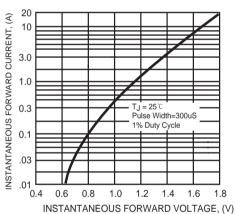
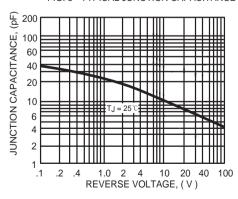


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



SURGE CURRENT 50 8.3ms Single Half Sine-Wave (JEDED Method) 40 30

FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD

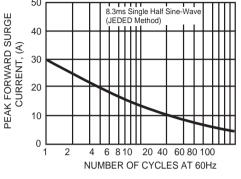


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

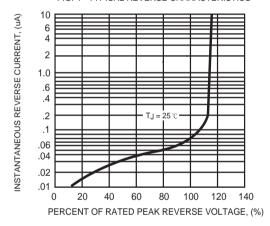


FIG. 6 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

