

GLASS PASSIVATED SILICON RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 16 Amperes

FEATURES

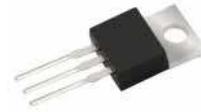
- * Low power loss, high efficiency
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High surge capability
- * High reliability

MECHANICAL DATA

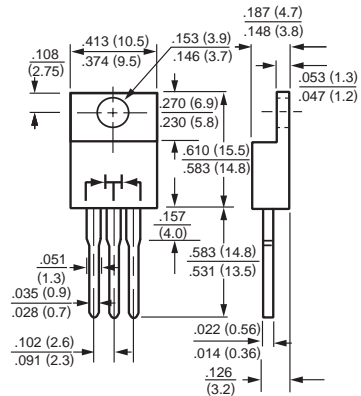
- * Case: TO-220 molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.24 grams
- * Polarity: As marked

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%.



TO-220



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

| RATINGS | SYMBOL | RL16 01C | RL16 02C | RL16 03C | RL16 04C | RL16 05C | RL16 06C | RL16 07C | 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 TC = 100°C (Note 1) | IO | 16.0 | | | | | | | | Amps |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | 200 | | | | | | | | Amps |
| Typical Thermal Resistance | RθJC | 3.0 | | | | | | | | °C/W |
| Typical Junction Capacitance (Note 2) | CJ | 40 | | | | | | | | pF |
| Operating and Storage Temperature Range | TJ, TSTG | -65 to +150 | | | | | | | | °C |

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

| CHARACTERISTICS | SYMBOL | RL16 01C | RL16 02C | RL16 03C | RL16 04C | RL16 05C | RL16 06C | RL16 07C | UNITS | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|-------|
| Maximum Instantaneous Forward Voltage at 8.0A DC | VF | 1.1 | | | | | | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @Tc = 25°C | 10 | | | | | | | | uAmps |
| | @Tc = 100°C | 100 | | | | | | | | |

NOTES : 1. Case Temperature Measured at Metal Tab.
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
 3. Suffix " A " = Common Anode.

RATING AND CHARACTERISTIC CURVES (RL1601C THRU RL1607C)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

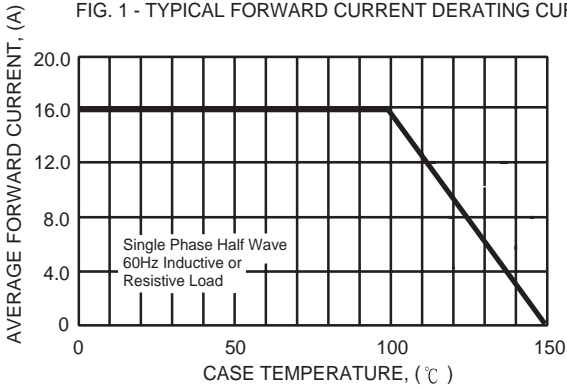


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

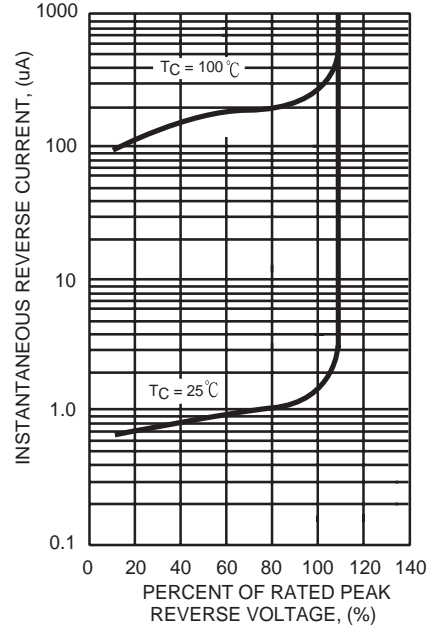


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

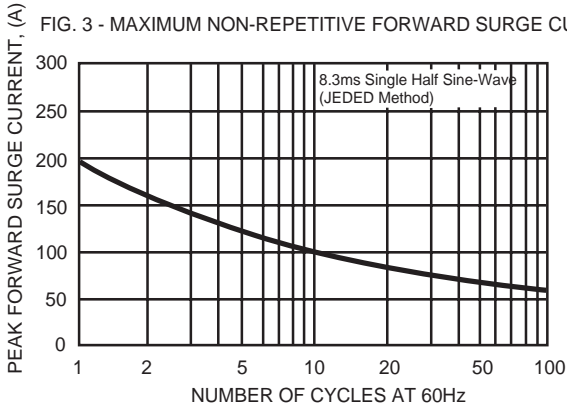


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

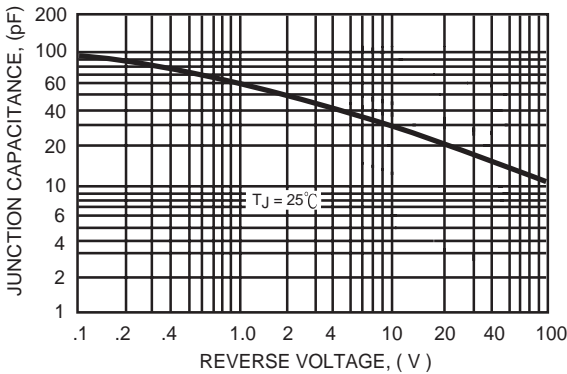


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

