

# RL1601 THRU RL1607

## GLASS PASSIVATED SILICON RECTIFIER

**REVERSE VOLTAGE:** 50 to 1000 VOLTS  
**FORWARD CURRENT:** 16.0 AMPERE

### FEATURES

- Low forward voltage drop
- High current capability
- High capability
- High surge current capability

### MECHANICAL DATA

Case: Molded plastic, TO-220A

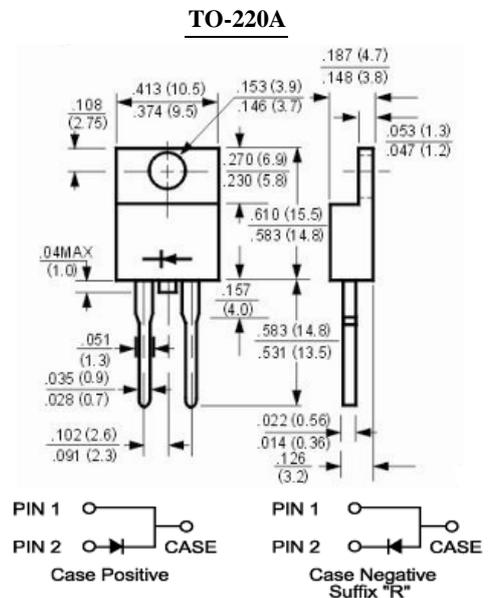
Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed

Polarity: As marked

Mounting position: Any

Weight: 0.08ounce, 2.24gram



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%.

	Symbols	RL1601	RL1602	RL1603	RL1604	RL1605	RL1606	RL1607	Units
Maximum Recurrent 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 .375"(9.5mm) Lead Length at $T_C=100^\circ C$	$I_{(AV)}$	16.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	250							Amp
Maximum Forward Voltage at 16.0A DC and 25°C	$V_F$	1.1							Volts
Maximum Reverse Current      at $T_C=25^\circ C$ at Rated DC Blocking Voltage $T_C=125^\circ C$	$I_R$	10.0 250							uAmp
Typical Junction Capacitance (Note 1)	$C_J$	100							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2							°C/W
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150							°C

#### NOTES:

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

2- Thermal Resistance from Junction to Case Mounted on Heatsink.

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### RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

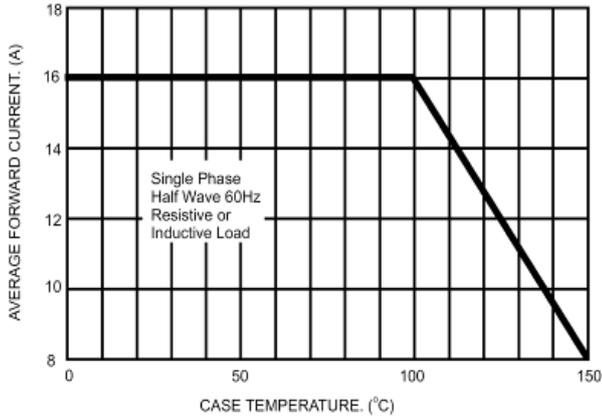


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

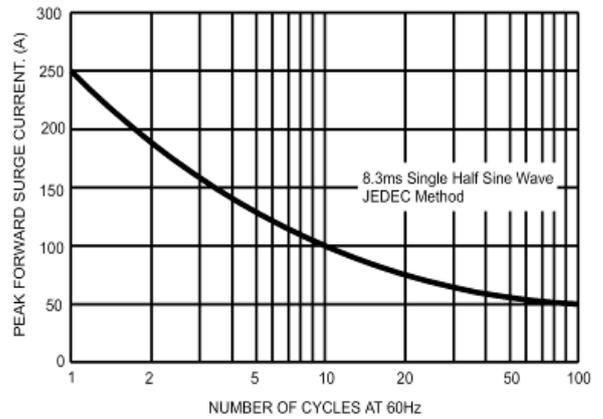


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

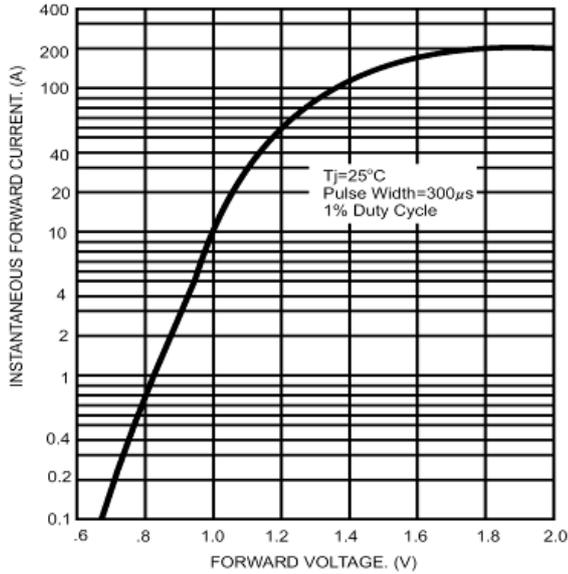


FIG.4- TYPICAL REVERSE CHARACTERISTICS

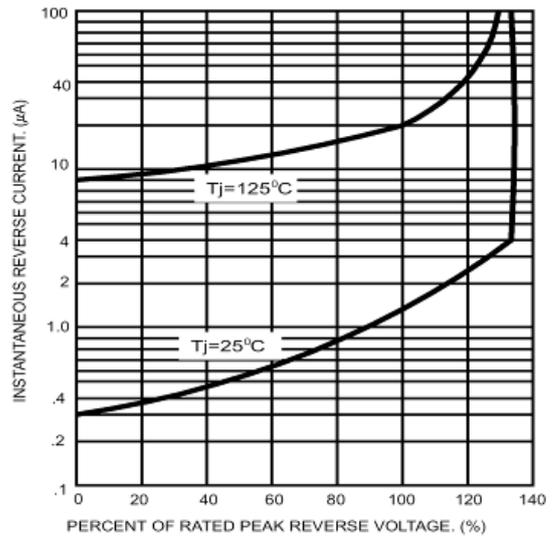


FIG.5- TYPICAL JUNCTION CAPACITANCE

FIG.5- TYPICAL JUNCTION CAPACITANCE

