

# RL1601 THRU RL1607

## GLASS PASSIVATED SILICON RECTIFIERS

Reverse Voltage – 50 to 1000 Volts

Forward Current – 16.0 Amperes

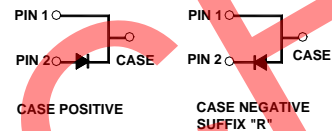
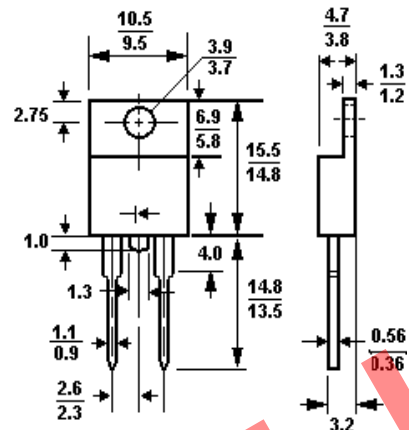
### Features

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

### Mechanical Data

- **Case:** Molded plastic, TO-220A
- **Terminals:** leads solderable per MIL-STD-202, method 208 guaranteed
- **Polarity:** As marked
- **Mounting Position:** Any

TO-220A



### Absolute Maximum Ratings and Characteristics

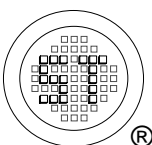
### Dimensions in mm

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	RL 1601	RL 1602	RL 1603	RL 1604	RL 1605	RL 1606	RL 1607	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 0.375"(9.5mm) Lead Length at $T_C = 100^\circ C$	$I_{(AV)}$	16.0							Amps
Peak forward surge current 8.3ms single half -sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	250							Amps
Maximum forward voltage at 16.0A DC and 25	$V_F$	1.1							Volts
Typical junction Capacitance (Note1)	$C_J$	100							pF
Typical thermal resistance (Note2)	$R_{0JC}$	2.0							/W
Maximum reverse current at rated DC blocking voltage	@ $T_C = 25^\circ C$	10							$\mu$ Amps
	@ $T_C = 125^\circ C$	250							$\mu$ Amps
Operating and storage temperature range	$T_J, T_{Stg}$	-55 to +150							$^\circ C$

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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FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

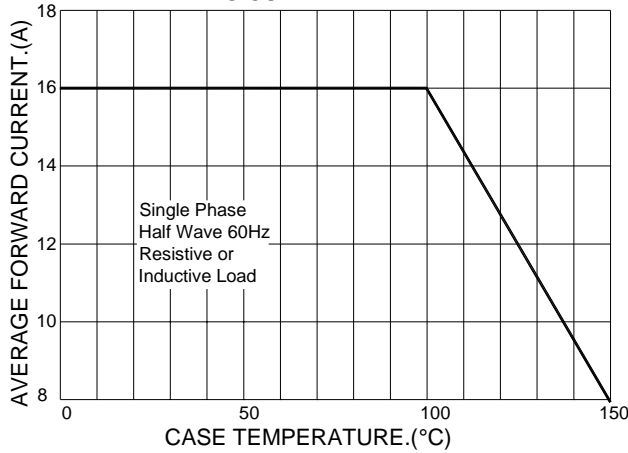


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

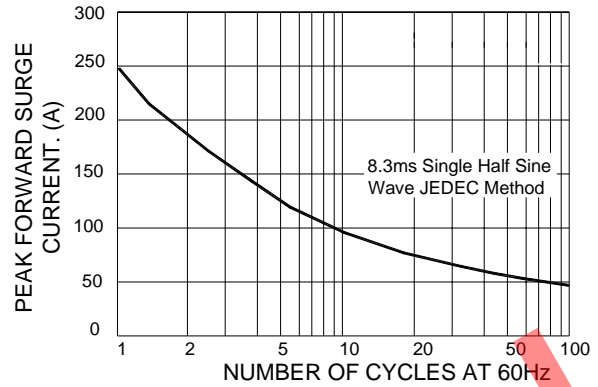


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

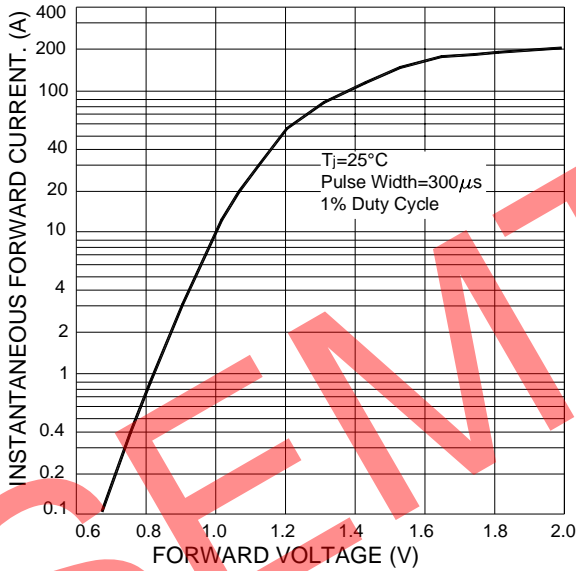


FIG.4- TYPICAL REVERSE CHARACTERISTICS

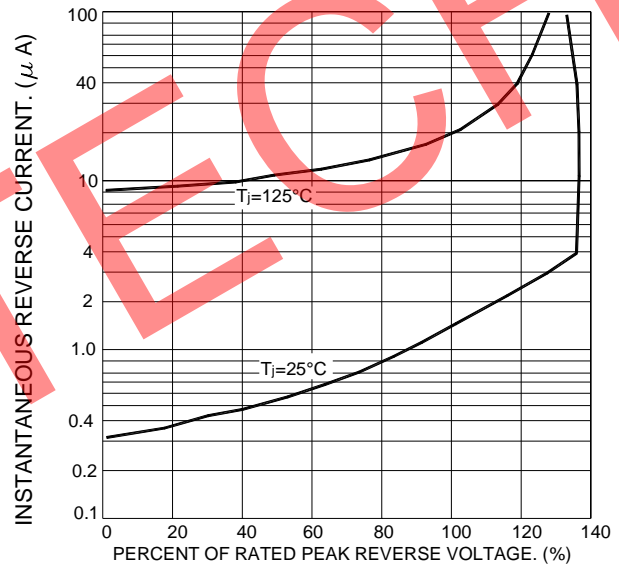
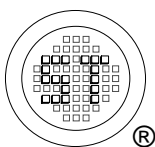
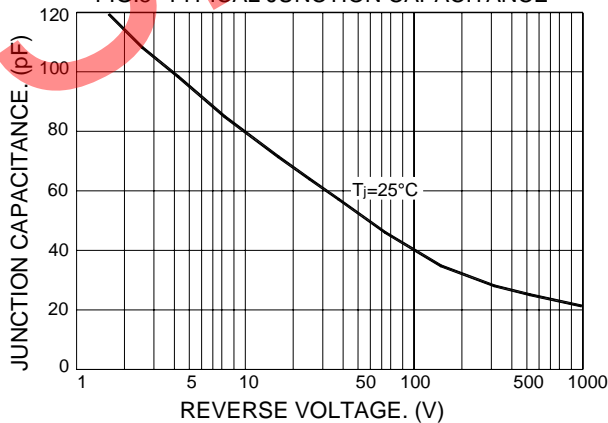


FIG.5- TYPICAL JUNCTION CAPACITANCE



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