

RL1601CT THRU RL1607CT

GLASS PASSIVATED SILICON RECTIFIERS

Reverse Voltage – 50 to 1000 V

Forward Current – 16 A

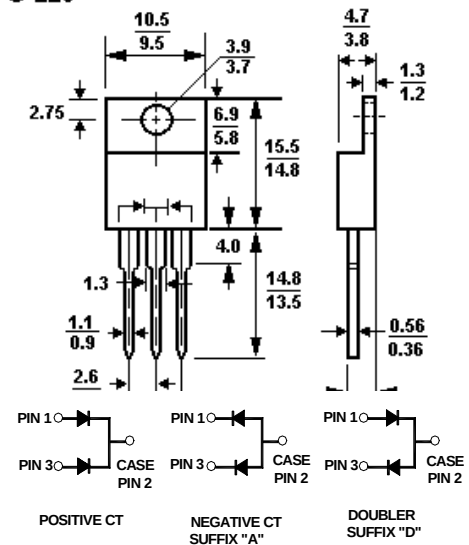
Features

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

Mechanical Data

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

TO-220



Absolute Maximum Ratings and Characteristics

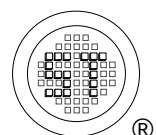
Dimensions in mm

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 1601CT	RL 1602CT	RL 1603CT	RL 1604CT	RL 1605CT	RL 1606CT	RL 1607CT	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 $T_C = 100^\circ\text{C}$	$I_{(AV)}$	16.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150							Amps
Maximum forward voltage at 8.0A DC and 25°C	V_F	1.1							Volts
Typical junction Capacitance (Note1)	C_J	50							pF
Typical thermal resistance (Note2)	R_{0JC}	3.0							°C/W
Maximum reverse current at rated DC blocking voltage	@ $T_C = 25^\circ\text{C}$	10							μAmps
	@ $T_C = 125^\circ\text{C}$	250							μAmps
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 per leg mounted on heatsink.



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FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

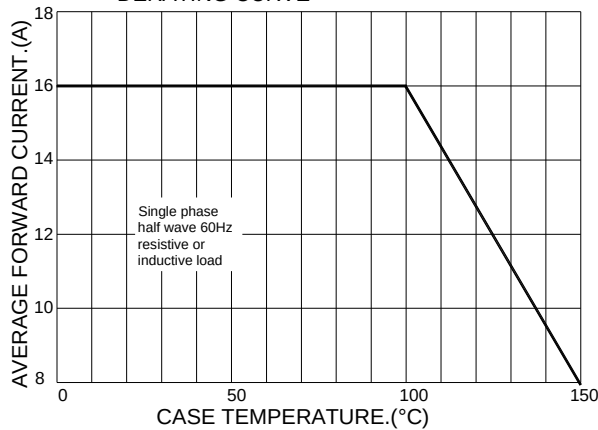


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PERLEG

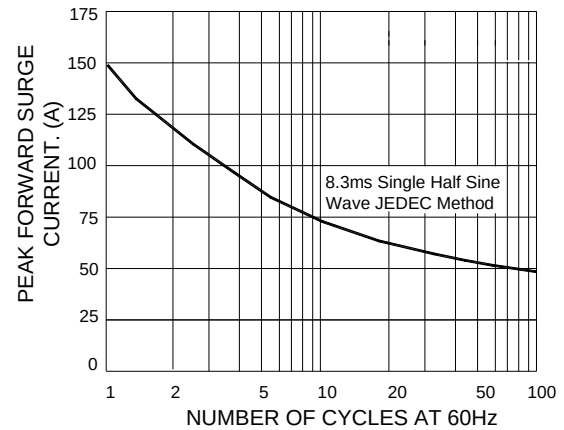


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PERLEG

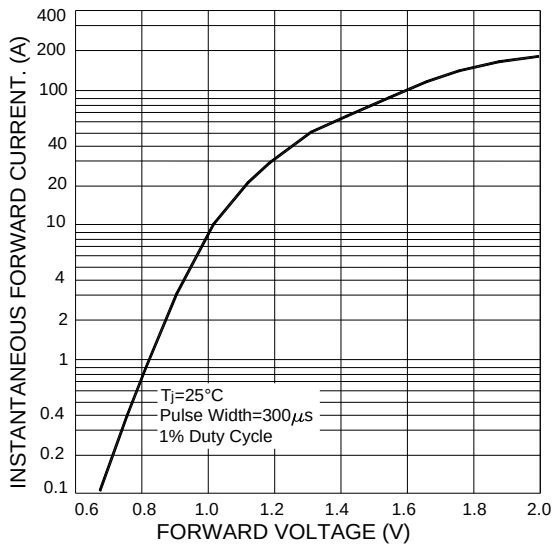


FIG.4- TYPICAL REVERSE CHARACTERISTICS PERLEG

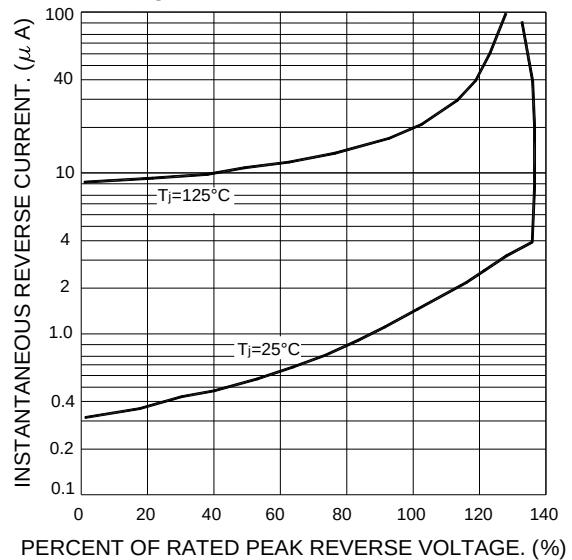


FIG.5- TYPICAL JUNCTION CAPACITANCE PERLEG

