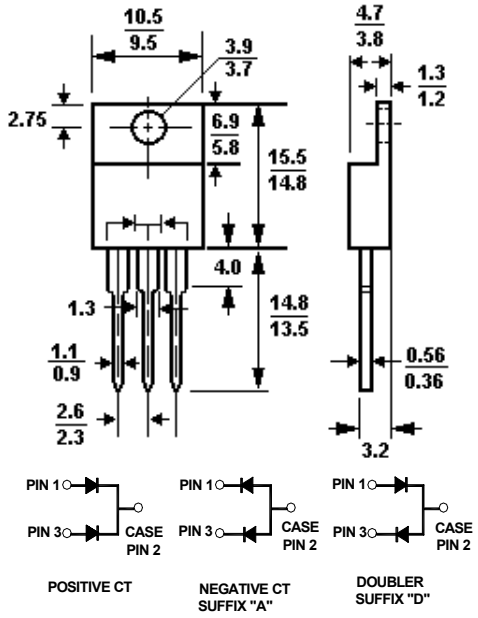
RL1601CT THRU RL1607CT

GLASS PASSIVATED SILICON RECTIFIERS
Reverse Voltage – 50 to 1000 Volts
Forward Current – 16.0 Amperes

TO-220



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

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 °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℃	V_F	1.1							Volts
Typical junction Capacitance (Note1)	C_J	50							pF
Typical thermal resistance (Note2)	R_{0JC}	3.0							℃/W
Maximum reverse current at rated DC blocking voltage @T_C = 25°C	I_R	10							μAmps
Maximum reverse current at rated DC blocking voltage @T_C =125 °C	I_R	250							μAmps
Operating and storage temperature range	T_J ,T_s	-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.

RL1601CT THRU RL1607CT

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

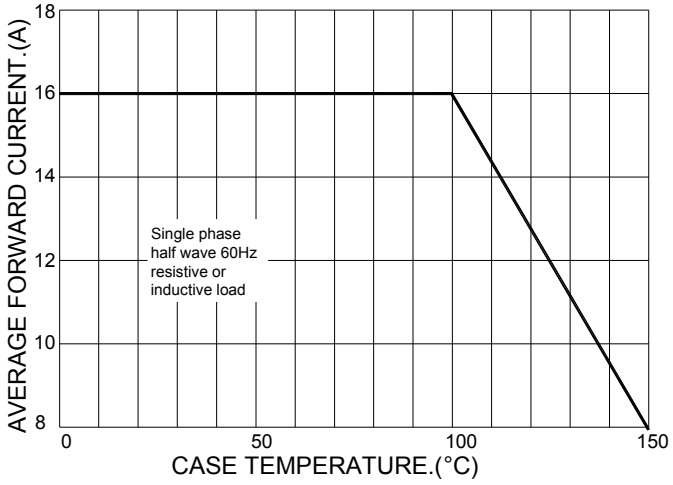


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PERLEG

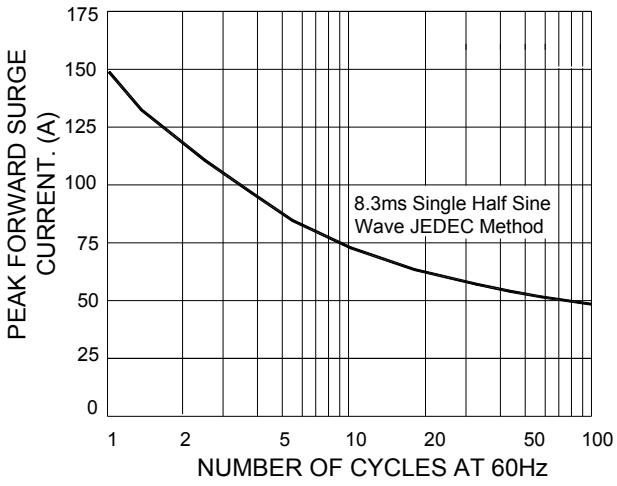


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PERLEG

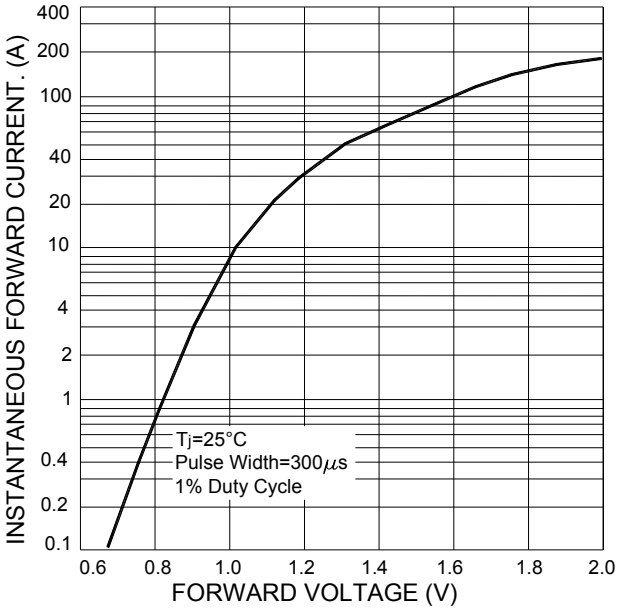


FIG.4- TYPICAL REVERSE CHARACTERISTICS PERLEG

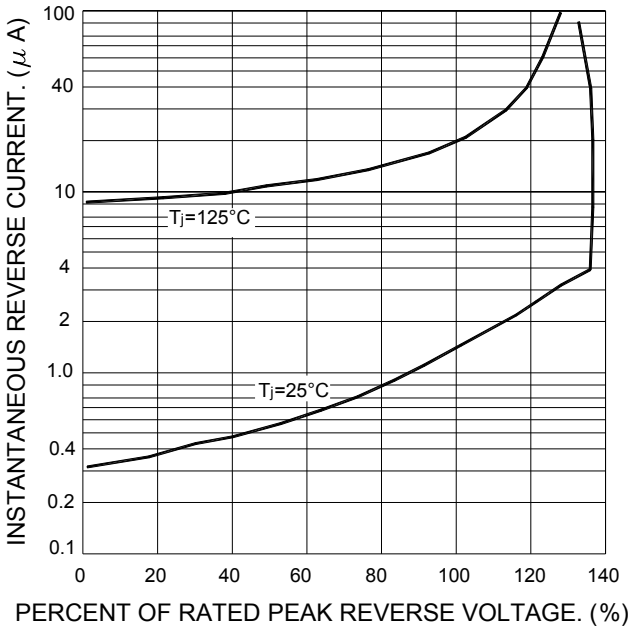
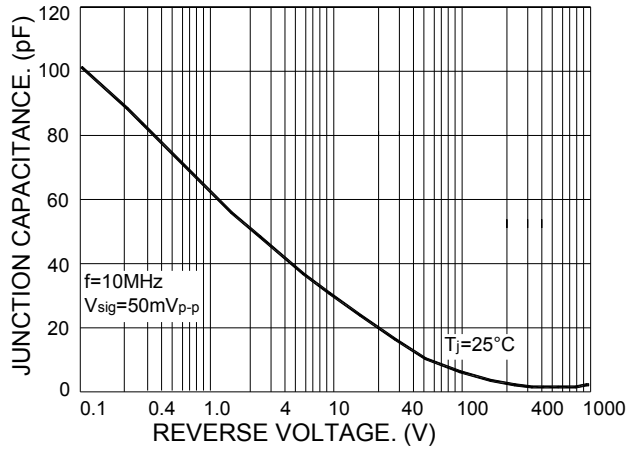


FIG.5- TYPICAL JUNCTION CAPACITANCE PERLEG



SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, acompany listed on the Hong Kong Stock Exchange, Stock Code: 724)

ISO/TS 16949 : 2002 Certificate No. 05103

ISO 14001 Certificate No. 7116

ISO 9001 : 2000

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