RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

RL151G THRU RL157G

GLASS PASSIVATED
JUNCTION PLASTIC RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts   CURRENT 1.5 Amperes

FEATURES
* Low cost
* Low leakage
* Low forward voltage drop
* High current capability

MECHANICAL DATA
* Case: Molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.38 gram

DO-15

.034 (0.9) DIA.
.028 (0.7)

1.0 (25.4) MIN.

.300 (7.6)
.230 (5.8)

.140 (3.6) DIA.
.104 (2.6)

1.0 (25.4) MIN.

Dimensions in inches and (millimeters)

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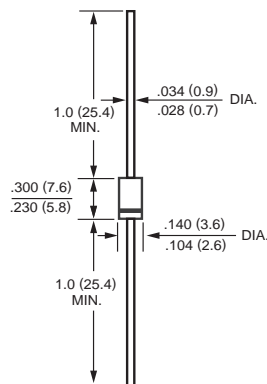
MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	RL151G	RL152G	RL153G	RL154G	RL155G	RL156G	RL157G	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 at TA = 75°C	I_O	1.5							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60							Amps
Typical Junction Capacitance (Note)	C_J	20							pF
Typical Thermal Resistance	$R_{\theta JA}$	50							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 175							°C

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

CHARACTERISTICS		SYMBOL	RL151G	RL152G	RL153G	RL154G	RL155G	RL156G	RL157G	UNITS
Maximum Instantaneous Forward Voltage at 1.5A DC		V_F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@TA = 25°C	I_R	5.0							uAmps
	@TA = 100°C		50							
Maximum Full Load Reverse Current Average, Full Cycle .375" (9.5mm) lead length at TL = 75°C			30							uAmps

NOTES : Measured at 1 MHz and applied reverse voltage of 4.0 volts

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RATING AND CHARACTERISTIC CURVES (RL151G THRU RL157G)
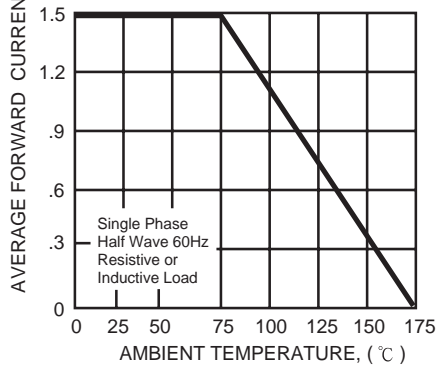
FIG. 1 - TYPICAL FORWARD CURRENT
DERATING CURVE

AVERAGE FORWARD CURRENT, (A)

AMBIENT TEMPERATURE, (℃)

Single Phase
Half Wave 60Hz
Resistive or
Inductive Load

FIG. 2 - TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTICS

INSTANTANEOUS FORWARD
CURRENT, (A)

INSTANTANEOUS FORWARD VOLTAGE, (V)

T J = 25℃
Pulse Width=300us
1% Duty Cycle
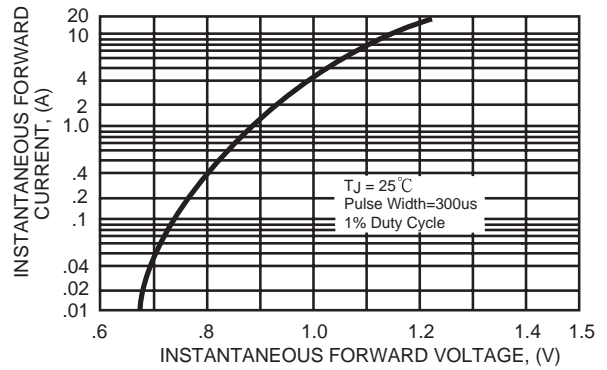
FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

PEAK FORWARD SURGE CURRENT, (A)

NUMBER OF CYCLES AT 60Hz

8.3ms Single Half Sine-Wave
(JEDED Method)
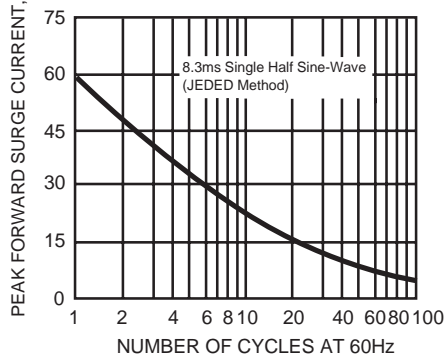
FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

INSTANTANEOUS REVERSE CURRENT, (uA)
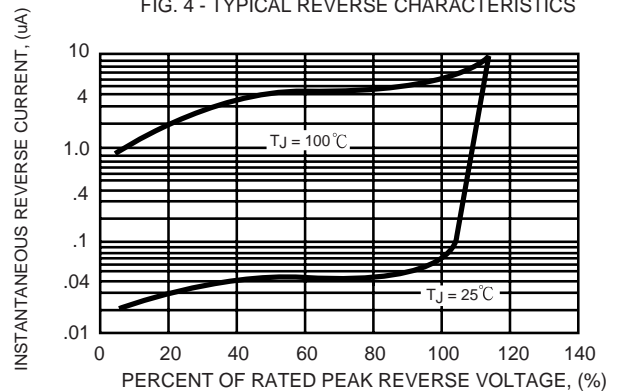
PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)

T J = 100℃

T J = 25℃

FIG. 5 - TYPICAL JUNCTION CAPACITANCE

JUNCTION CAPACITANCE, (pF)

REVERSE VOLTAGE, (V)

T J = 25℃

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