

SOFT RECOVERY/FAST SWITCHING RECTIFIER

VOLTAGE RANGE 50 to 600 Volts CURRENT 5.0 Amperes

FEATURES

- * Fast switching
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High surge capability
- * High reliability

MECHANICAL DATA

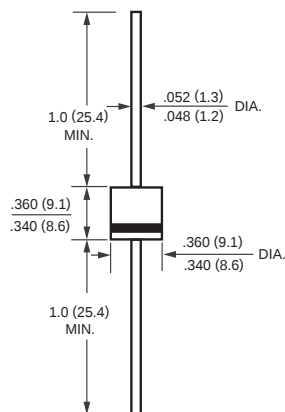
- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 1.70 grams

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%.



R-6



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	RL820	RL820	RL820	RL820	RL820	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	Volts
Maximum Average Forward Rectified Current at TA = 55°C	I _O	5.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	300					Amps
Typical Junction Capacitance (Note 2)	R _{θJA}	10					°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 150					°C

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

CHARACTERISTICS	SYMBOL	RL820	RL820	RL820	RL820	RL820	UNITS
Maximum Instantaneous Forward Voltage at 5.0A DC	V _F	1.3					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	I _R	25					uAmps
Maximum Reverse Recovery Time (Note 1)	t _{rr}	200					nSec

NOTES : 1. Test Conditions: I_F = 1.0A, V_R = 30V.

2. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5" (12.7mm) Lead length.

RATING AND CHARACTERISTIC CURVES (RL820 THRU RL826)

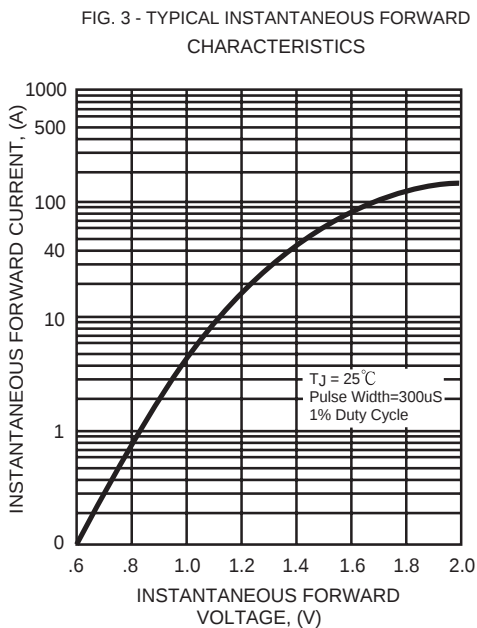
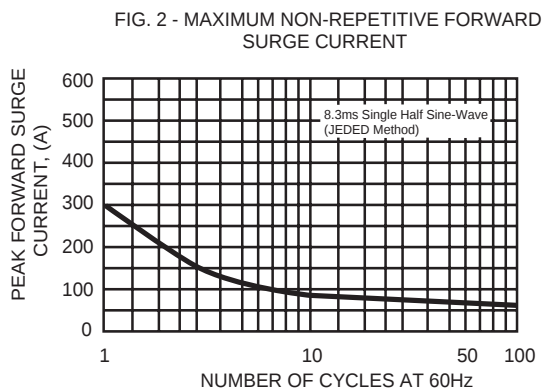
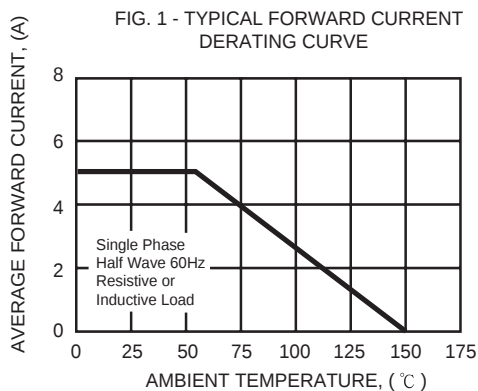


FIG. 4 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

