

**SOFT RECOVERY/FAST SWITCHING RECTIFIER**

**VOLTAGE RANGE 50 to 600 Volts CURRENT 5.0 Amperes**

**FEATURES**

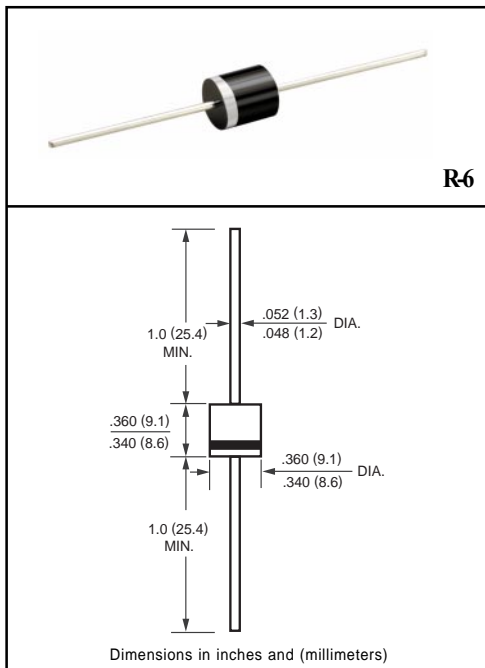
- \* Fast switching
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High surge capability
- \* High reliability

**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%.



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

RATINGS	SYMBOL	RL820	RL821	RL822	RL824	RL826	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	Volts
Maximum DC Blocking Voltage	Vdc	50	100	200	400	600	Volts
Maximum Average Forward Rectified Current at TA = 55°C	Io	5.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	300					Amps
Typical Junction Capacitance (Note 2)	RθJA	10					°C/W
Operating and Storage Temperature Range	TJ, TSTG	-55 to + 150					°C

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

CHARACTERISTICS	SYMBOL	RL820	RL821	RL822	RL824	RL826	UNITS
Maximum Instantaneous Forward Voltage at 5.0A DC	VF	1.3					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	IR	25					uAmps
Maximum Reverse Recovery Time (Note 1)	trr	200					nSec

NOTES : 1. Test Conditions: IF = 1.0A, VR = 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. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

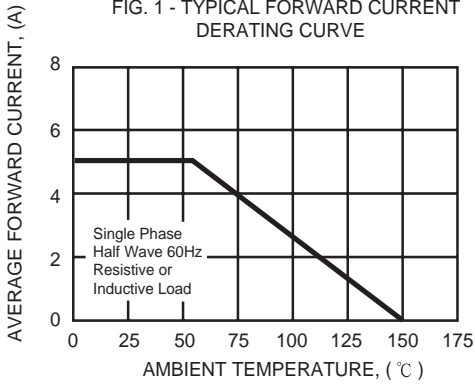


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

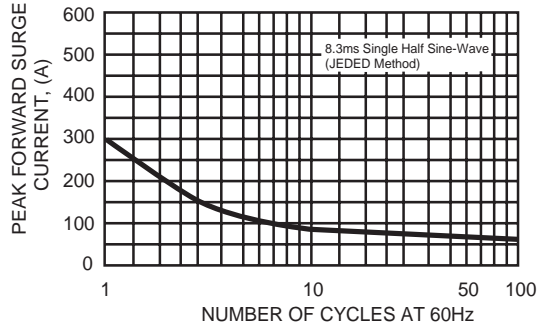


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

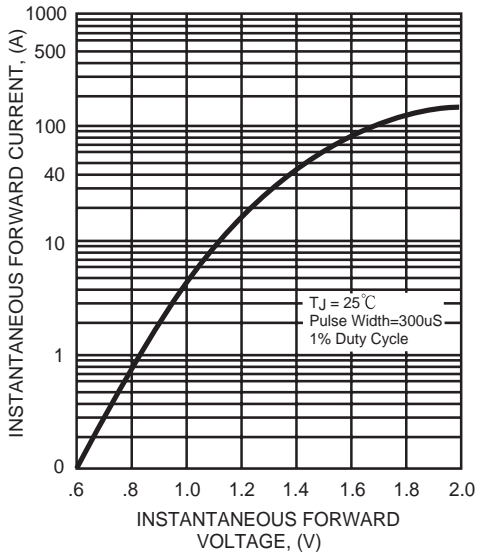
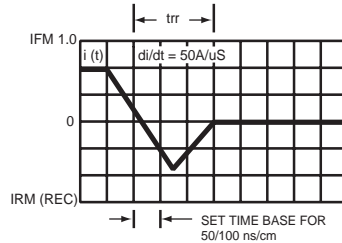
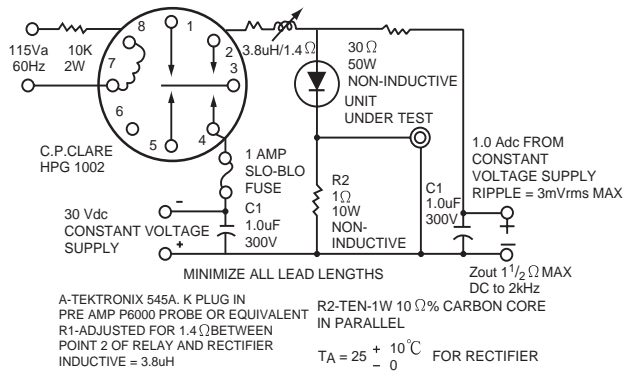


FIG. 4 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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