

# SOFT RECOVERY/FAST SWITCHING RECTIFIER

VOLTAGE RANGE 50 to 600 Volts CURRENT 5.0 Amperes

## FEATURES

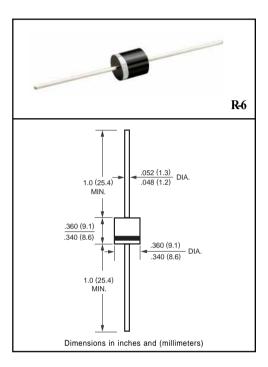
- \* Fast switching
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High surge capability
- \* High reliability

## **MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* 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	RL820	RL820	RL820	RL820	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	lo		Amps				
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM		Amps				
Typical Junction Capacitance (Note 2)	RθJA		°C/W				
Operating and Storage Temperature Range	TJ, TSTG		٥C				

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

Vf		Volts				
IR		uAmps				
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)

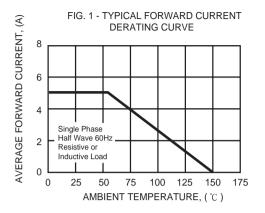
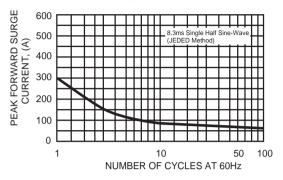
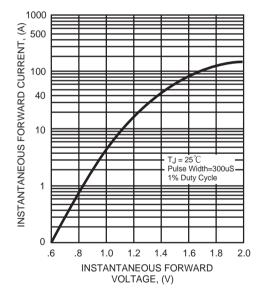


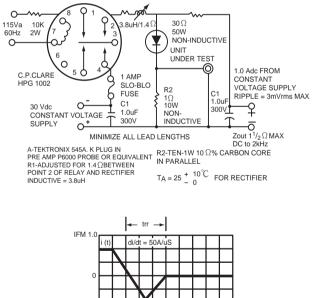
FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



## FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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



IRM (REC)

