

## MR820 THRU MR828

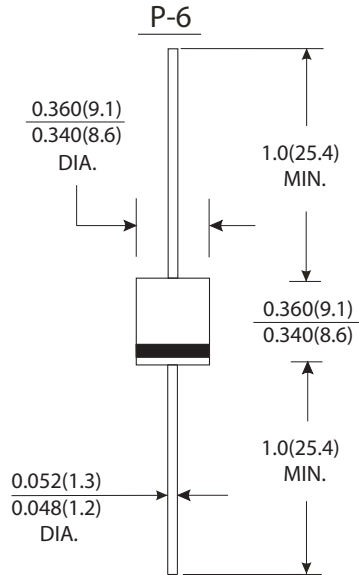
CURRENT 5.0 Amperes  
VOLTAGE 50 to 800 Volts

### Features

- Plastic package has Underwrites Laboratory Flammability Classification 94V-0
- Fast switching speed
- Diffused junction
- High current capability
- High temperature soldering guaranteed : 250 °C/10 seconds, 0.375"(9.5mm) lead length, 5 lbs.(2.3kg) tension.

### Mechanical Data

- Case : P-6 molded plastic body
- Terminals : Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.07 ounce, 2.1 grams



Dimensions in inches and (millimeters)

### Maximum Ratings And Electrical Characteristics

(Ratings at 25 °C ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

	Symbols	MR820	MR821	MR822	MR824	MR826	MR828	Units
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> =55 °C	I <sub(av)< sub=""></sub(av)<>	5.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	300.0						Amps
Maximum instantaneous forward voltage at 5.0A	V <sub>F</sub>	1.1						Volts
Maximum DC reverse current at rated DC blocking voltage	T <sub>A</sub> =25 °C	10						μ A
	T <sub>A</sub> =100 °C	100						
Maximum reverse recovery time (Note 1)	T <sub>rr</sub>	120						ns
Maximum thermal resistance	R <sub>θ JA</sub>	10						°C/W
Typical junction capacitance (Note 2)	C <sub>J</sub>	300						pF
Operating junction and storage temperature range	T <sub>J</sub> T <sub>STG</sub>	-55 to +150						°C

#### Notes:

- (1) Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A.
- (2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

## RATINGS AND CHARACTERISTIC CURVES MR820 THRU MR828

FIG .1 -REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

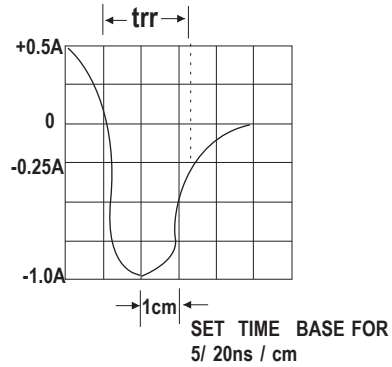
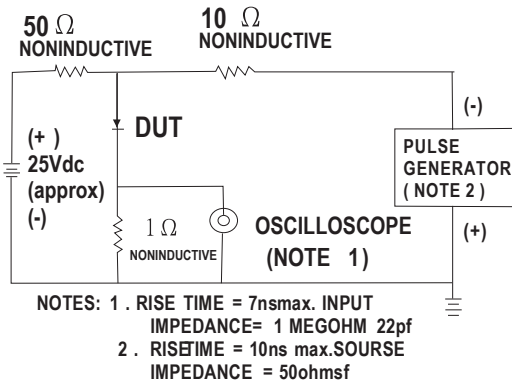


FIG. 2 MAXIMUM CURRENT DERATING CURVE

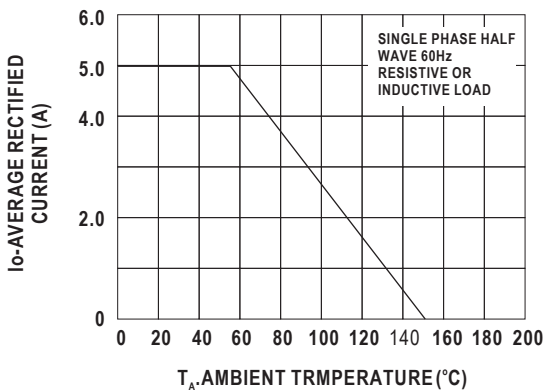


FIG. 3 MAXIMUM FORWARD SURGE NUMBER OF CYCLES

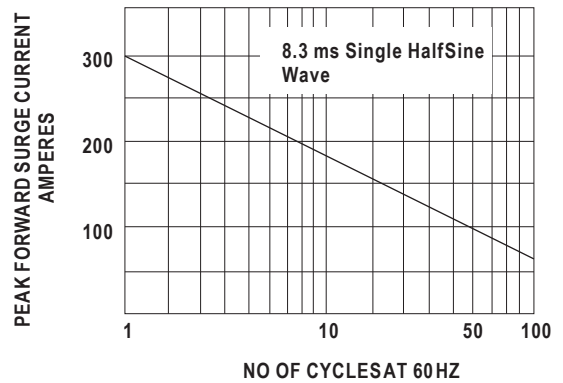


FIG. 4 TYPICAL JREVERSE CHARACTERISTICS

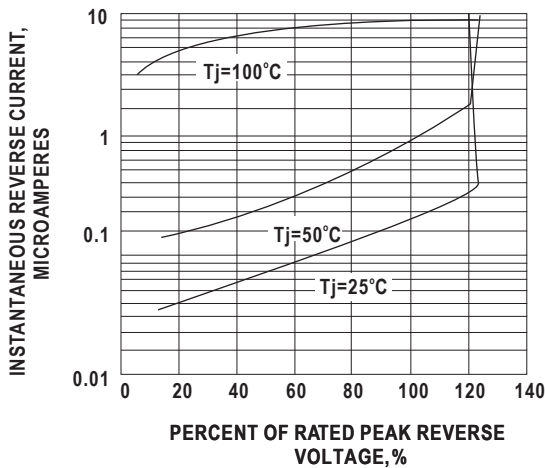


FIG. 5 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

