MR820 THRU MR828

5A Fast Recovery Plastic Rectifier

Voltage Range 50 to 1000 Volts
Current 5.0 Amperes

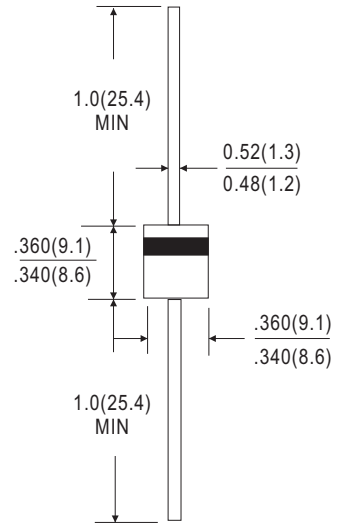
Features

* Theplastic package carries Underwiters Laboratory Flammability Classification 94V-0
* High surge current capability
* High current operation
* Fast switching for high efficiency
* Diffused junction
* Completely insulated case
* Uniform molded body
* High temperature soldering guaranteed:265°C /10s /.375" (9.5mm) lead length/5 lbs.(2.3kg)tension

Mechanical Data

* Case: Molded plastic
* Terminals: Plated axial leads,solderable per MIL-STD-202,method 208
* Polarity: Color band denotes cathode
* Mounting position: Any
* Weight: 2.1 grams

R-6



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating 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%.

Type Number	Symbols	MR820	MR821	MR822	MR824	MR826	MR828	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) lead length at T_A=55°C	I_O	5.0						Amp
Peak Forward Surge Current,8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	300						Amps
Typical junction capacitance (Note 1)	C_J	300						pF
Typical thermal resistance (Note 2)	RθJA	10						°C/W
Storage temperature range	T_{STG}	-55 to+150						°C
Operating temperature range	T_{OP}	-55 to +150						°C

Electrical characteristics (A_T T_A=25°C unless otherwise noted)

Characteristics	Symbols	MR820	MR821	MR822	MR824	MR826	MR828	Units
Maximum Forward Voltage at I_O DC	V_F	1.1						Volts
Maximum Reverse Current at 25°C	I_R	10						uA
Maximum Reverse Current at 100°C	I_R	100						uA
Maximum Reverse recovery time(Note 3)	T_{rr}	120						ns

Notes:

1. Measured at 1 MHz and applied reverse voltage of 4.0 Volts

2.Both Leads Attatched To Heatsink 63.5X63.5X1t(mm) Copper Plate At Lead Lenth 5mm

3.Reverse Recovery Test Conditions:I_F=0.5A , I_R=1.0A , I_{RR}=0.25A.

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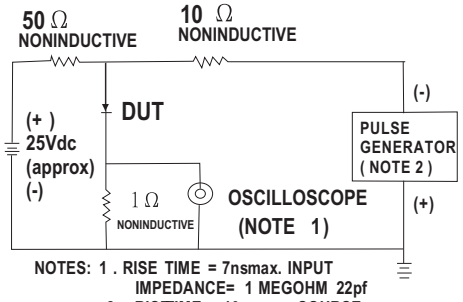
RATINGS AND CHARACTERISTIC CURVES (MR820 THRU MR828)



NOTES: 1 . RISE TIME = 7nsmax. INPUT IMPEDANCE= 1 MEGOHM 22pf
2 . RISETIME = 10ns max.SOURSE IMPEDANCE = 50ohmsf

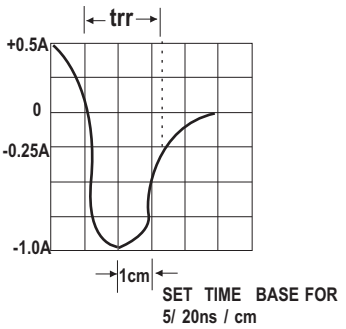


FIG . 2 MAXIMUMCURRENT DERATINGCURVE

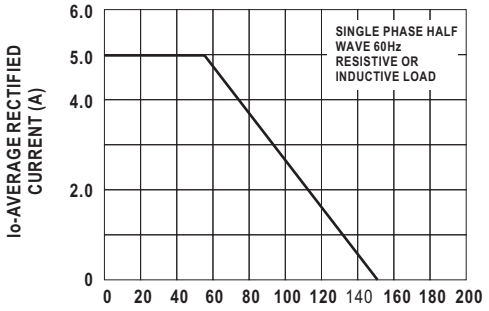


FIG .3 MAXIMUM FORWARD SURGE NUMBER OF CYCLES

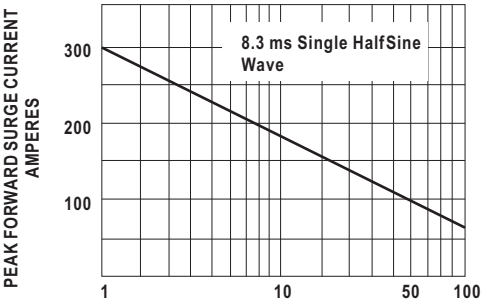


FIG .4 TYPICALJREVERSE CHARACTERISTICS

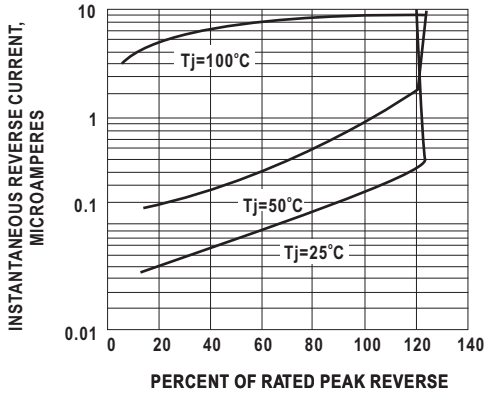


FIG .5 TYPICALINSTANTANEOUS FORWARD CHARACTERISTICS