



**MR820
THRU
MR826**

5A FAST RECOVERY PLASTIC RECTIFIER

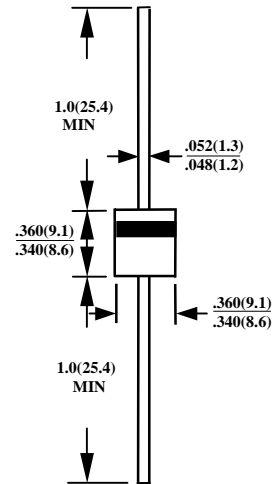
FEATURES

- THE PLASTIC PACKAGE CARRIES UNDERWRITERS 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

CASE-P6



DIMENSIONS IN INCHES AND (MILLIMETERS)

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%

RATINGS	SYMBOL	MR820	MR821	MR822	MR824	MR826	UNITS	
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	50	100	200	400	600	V	
MAXIMUM RMS VOLTAGE	V_{RMS}	35	70	140	280	420	V	
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	50	100	200	400	600	V	
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT .375" (9.5mm) LEAD LENGTH AT TA=55°C	I_O	5.0						A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	300						A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_J	300						PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	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)

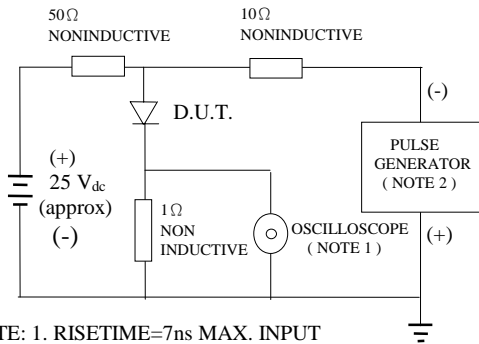
CHARACTERISTICS	SYMBOL	MR820	MR821	MR822	MR824	MR826	UNITS	
MAXIMUM FORWARD VOLTAGE AT I _O DC	V_F	1.1						V
MAXIMUM REVERSE CURRENT AT 25°C	I_R	10						μA
MAXIMUM REVERSE CURRENT AT 100°C	I_R	100						μA
MAXIMUM REVERSE RECOVERY TIME (NOTE 3)	T_{RR}	120						nS

NOTE :

1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS
2. BOTH LEADS ATTACHED TO HEATSINK 63.5x63.5x1t(mm) COPPER PLATE AT LEAD LENGTH 5mm
3. REVERSE RECOVERY TEST CONDITIONS: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

RATINGS AND CHARACTERISTIC CURVE MR820 THRU MR826

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



NOTE: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = 1 MEGOHM 22PF
 2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = 50OHMS

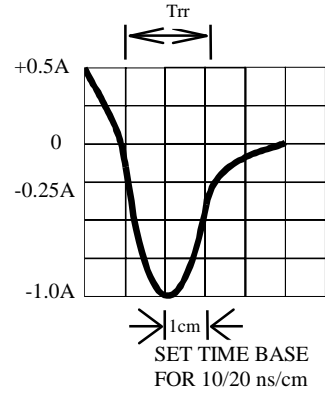


Fig. 2-MAXIMUM CURRENT DERATING CURVE

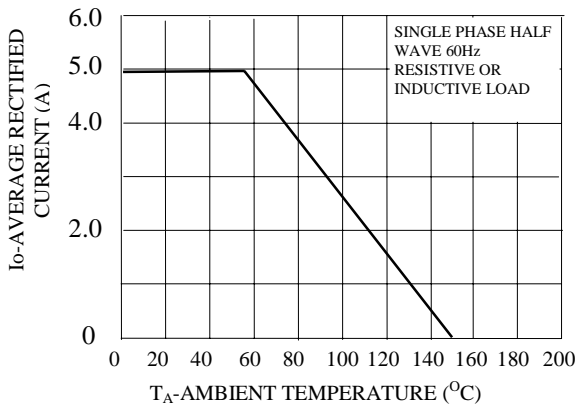


Fig. 3-MAXIMUM FORWARD SURGE NUMBER OF CYCLES

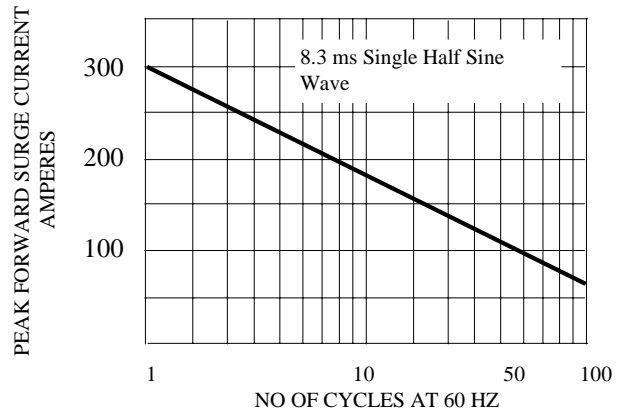


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

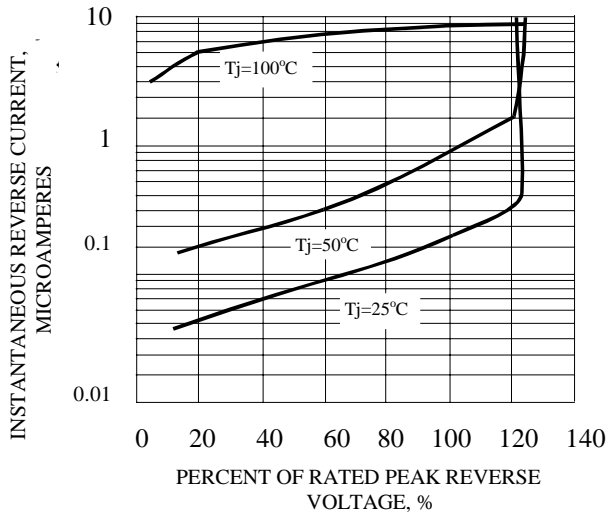


FIG. 5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

