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## 5A FAST RECOVERY PLASTIC RECTIFIER

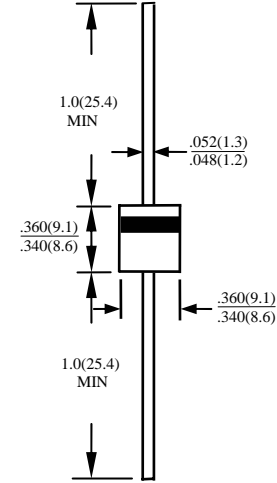
### MR820 THRU MR826

#### 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 /0.375" (9.5mm) LEAD LENGTH/5 LBS, (2.3 KG) TENSION

#### MECHANICAL DATA

- CASE: MOLDED PLASTIC, P6, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: PLATED AXIAL LEADS, SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: COLOR BAND DENOTES CATHODE
- MOUNTING POSITION: ANY
- WEIGHT: 2.1 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%

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 0.375" (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<sub>T</sub> T<sub>A</sub> =25°C UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	MR820	MR821	MR822	MR824	MR826	UNITS	
MAXIMUM FORWARD VOLTAGE AT I <sub>O</sub> 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 HEAT SINK 63.5x63.5x1t(mm) COPPER PLATE AT LEAD LENGTH 5mm  
 3. REVERSE RECOVERY TEST CONDITIONS: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

# RATINGS AND CHARACTERISTIC CURVE MR820 THRU MR826

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

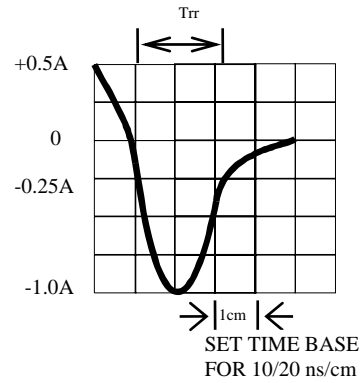
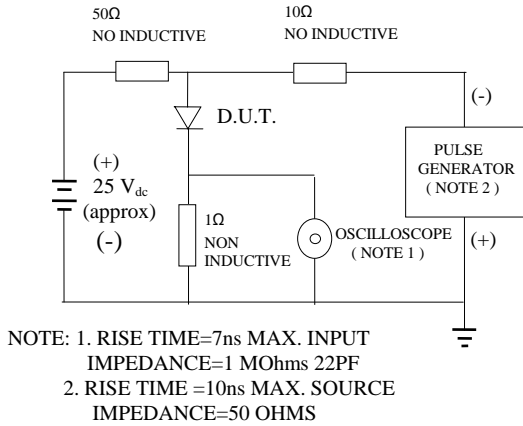


Fig. 3-MAXIMUM FORWARD SURGE NUMBER OF CYCLES

Fig. 2-MAXIMUM CURRENT DERATING CURVE

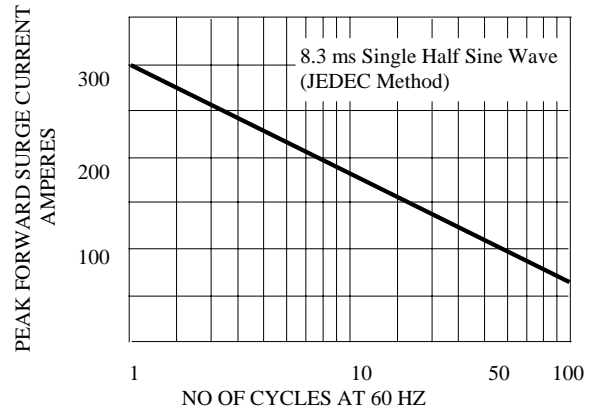
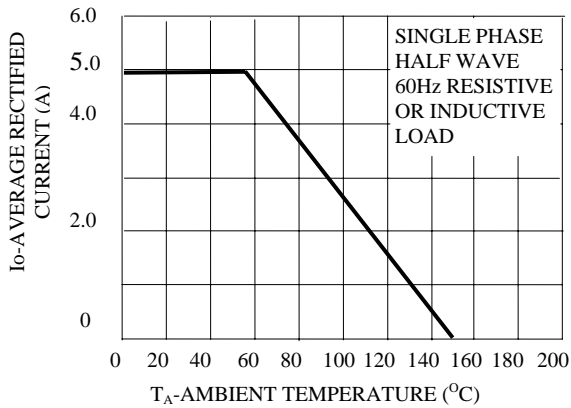


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

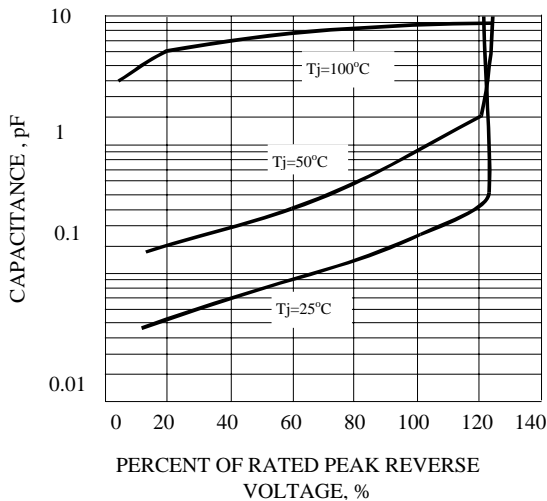


FIG. 5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

