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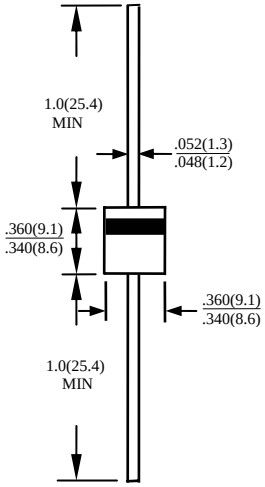
5A FAST RECOVERY PLASTIC RECTIFIER
MR820 THRU MR826

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					℃/W
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO + 150					℃
OPERATING TEMPERATURE RANGE	T_{OP}	- 55 TO + 150					℃

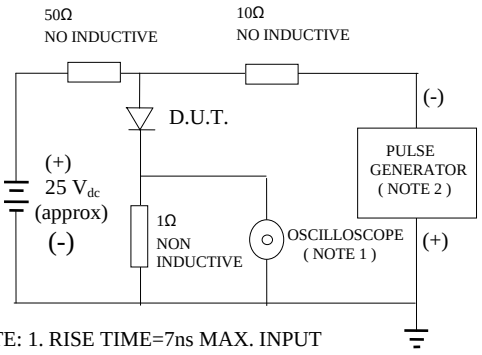
ELECTRICAL CHARACTERISTICS (A_T T_A =25°C UNLESS OTHERWISE NOTED)

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℃	I_R	10					μA
MAXIMUM REVERSE CURRENT AT 100℃	I_R	100					μA
MAXIMUM REVERSE RECOVERY TIME (NOTE 3)	T_{RR}	120					nS

NOTE: 1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE 0F 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_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 MOhms 22PF
2. RISE TIME =10ns MAX. SOURCE IMPEDANCE=50 OHMS

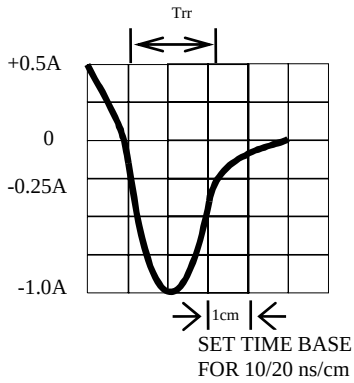
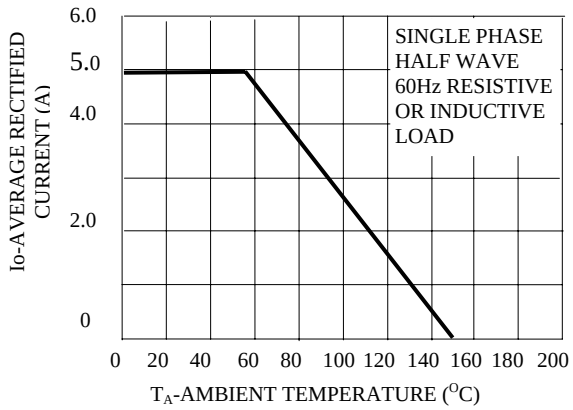
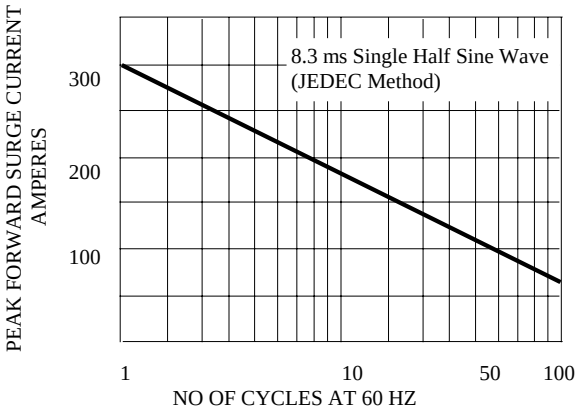


Fig. 3-MAXIMUM FORWARD SURGE NUMBER OF CYCLES

Fig. 2-MAXIMUM CURRENT DERATING CURVE





IG. 4-TYPICAL REVERSE CHARACTERISTICS

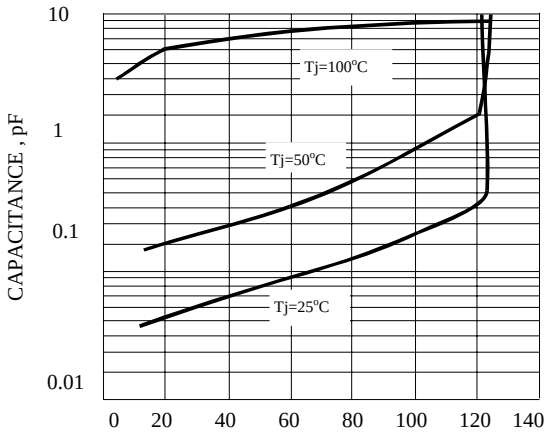


FIG. 5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS