



MR850 THRU MR8510

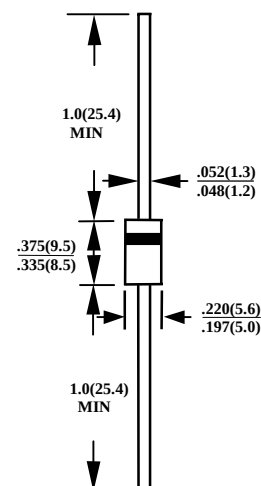
3A FAST RECOVERY PLASTIC RECTIFIER

FEATURES

- HIGH SURGE CURRENT CAPABILITY
- PLASTIC MATERIAL CARRIES U/L RECOGNITION 94-0
- HIGH CURRENT OPERATION 3 AMPERES AT TA=55°C
- FAST SWITCHING FOR HIGH EFFICIENCY
- HIGH TEMPERATURE SOLDERING GUARANTEED : 250°C/10S
/.375" (9.5mm) LEAD LENGTH/5 LBS., (2.3 KG) TENSION

MECHANICAL DATA

- CASE : MOLDED PLASTIC
- TERMINALS : AXIAL LEADS, SOLDERABLE PER MIL-STD-202,METHOD 208
- POLARITY : COLOR BAND DENOTES CATHODE
- MOUNTING POSITION : ANY
- WEIGHT : 1.2 GRAMS



CASE : DO201AD
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	MR850	MR851	MR852	MR854	MR856	MR858	MR8510	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	50	100	200	400	600	800	1000	V
MAXIMUM RMS VOLTAGE	V_{RMS}	35	70	140	280	420	560	700	v
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	50	100	200	400	600	800	1000	v
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT .375" (9.5mm) LEAD LENGTH AT TA=55°C	I_O	3.0							A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	100							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_J	28							PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	20							°C/W
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO + 150							°C
OPERATING TEMPERATURE RANGE	T_{OP}	- 55 TO + 150							°C

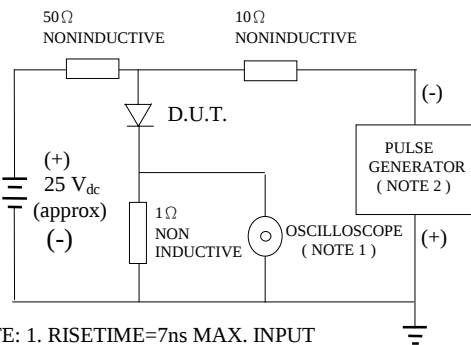
ELECTRICAL CHARACTERISTICS (A_T T_A =25°C UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	MR850	MR851	MR852	MR854	MR856	MR858	MR8510	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	1.25					1.50	1.75	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 63.5×63.5×1t(mm) COPPER PLATE AT LEAD LENTH 5mm
3. REVERSE RECOVERY TEST CONDITIONS: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

RATINGS AND CHARACTERISTIC CURVE MR850 THRU MR8510

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

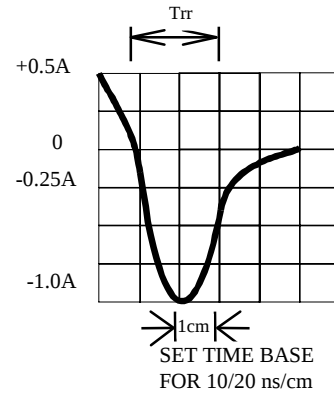


Fig. 2-MAXIMUM CURRENT DERATING CURVE

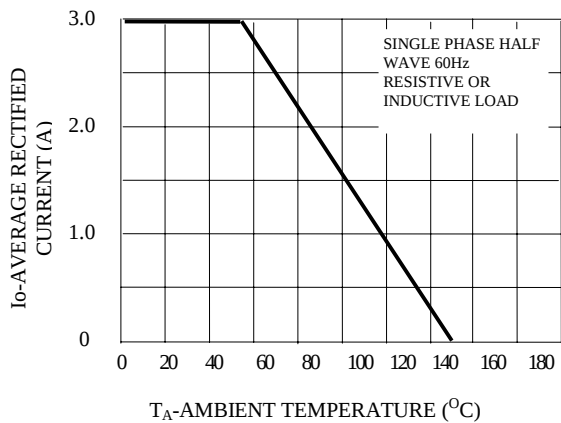


Fig. 3-MAXIMUM FORWARD SURGE CURRENT NUMBER OF CYCLES

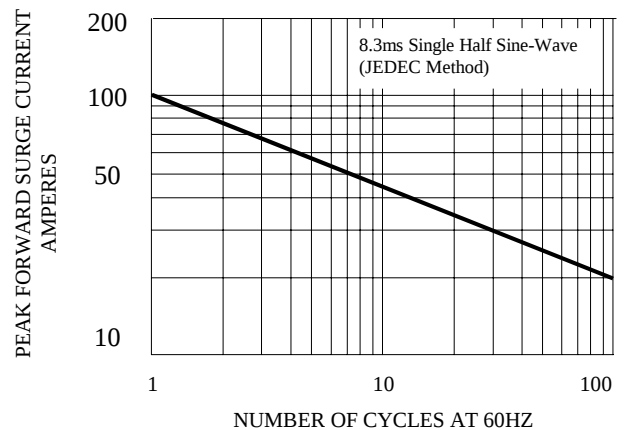


FIG. 4-TYPICAL JUNCTION CAPACITANCE

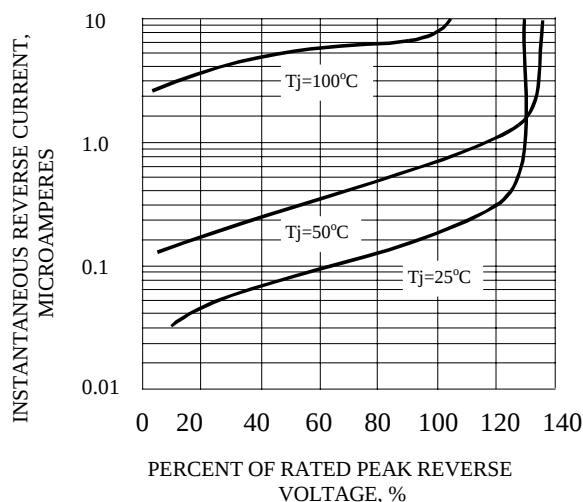


FIG. 5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

