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3A FAST RECOVERY PLASTIC RECTIFIER

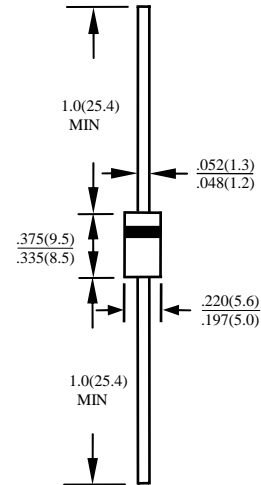
MR850 THRU MR8510

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

MECHANICAL DATA

- CASE: MOLDED PLASTIC, DO201AD, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: AXIAL LEADS, SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: COLOR BAND DENOTES CATHODE
- MOUNTING POSITION: ANY
- WEIGHT: 1.2 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	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 0.375" (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

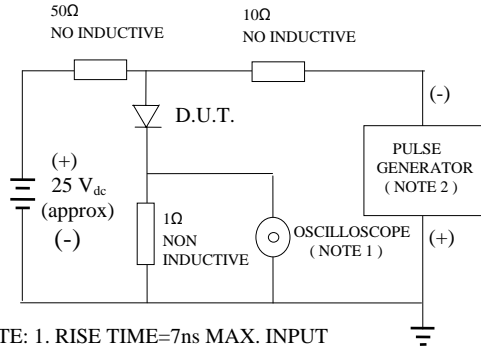
ELECTRICAL CHARACTERISTICS (AT TA=25°C UNLESS OTHERWISE NOTED)

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 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 MR850 THRU MR8510

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

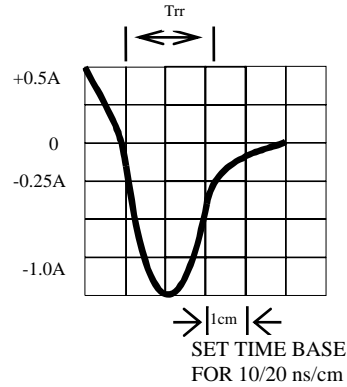


Fig. 2-MAXIMUM CURRENT DERATING CURVE

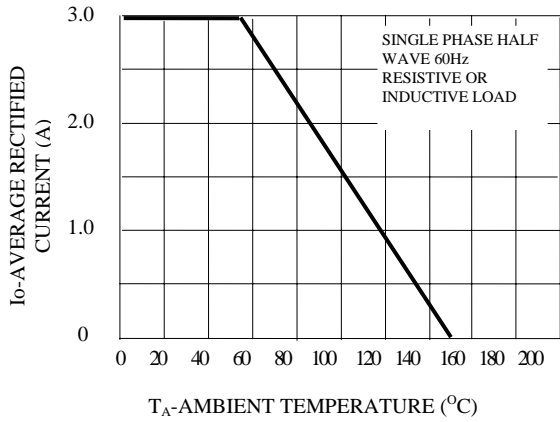


Fig. 3-MAXIMUM FORWARD SURGE NUMBER OF CYCLES

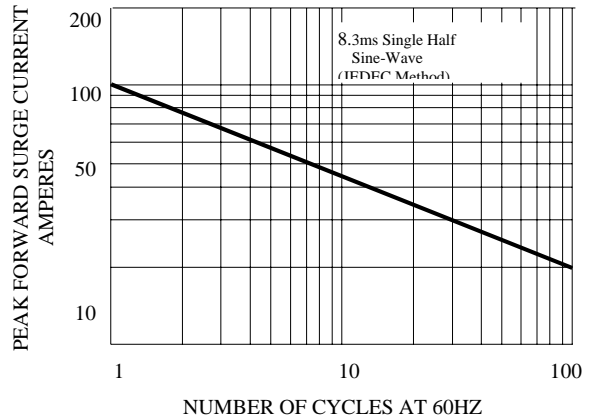


FIG. 4-TYPICAL JUNCTION CAPACITANCE

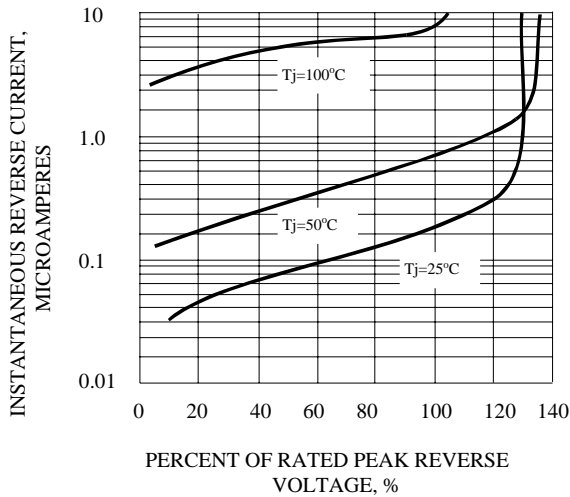


FIG. 5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

