



MR850 THRU MR858

3.0 AMPS. FAST RECOVERY RECTIFIERS

FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability

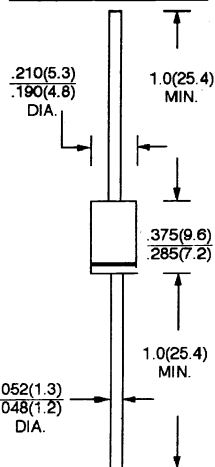
MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting Position: Any
- * Weight: 1.18 grams

VOLTAGE RANGE

50 to 800 Volts
CURRENT
3.0 Amperes

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%

TYPE NUMBER	SYMBOLS	MR850	MR851	MR852	MR854	MR856	MR858	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	V
Maximum D. C Blocking Voltage	V_{DC}	50	100	200	400	600	800	V
Maximum Average Forward Rectified Current .375" (9.5mm) lead length @ $T_A = 55^{\circ}\text{C}$	$I_{F(AV)}$	3.0						A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	150						A
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.25				1.3		V
Maximum D. C Reverse Current @ $T_A = 25^{\circ}\text{C}$ at Rated D. C Blocking Voltage @ $T_A = 100^{\circ}\text{C}$	I_R	10.0 200						μA μA
Maximum Reverse Recovery Time(Note 1)	T_{RR}	100				150		nS
Typical Junction Capacitance (Note 2)	C_J	80						pF
Operating Temperature Range	T_J	- 65 to + 125						$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 150						$^{\circ}\text{C}$

NOTES: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.

2. Measured at 1 MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (MR850 THRU MR858)

FIG. 1 - FORWARD CURRENT DERATING CURVE

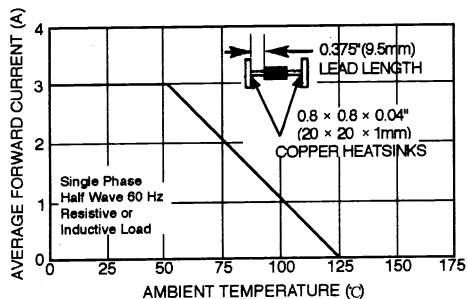


FIG. 2 - MAXIMUM NON - REPETITIVE FORWARD SURGE CURRENT

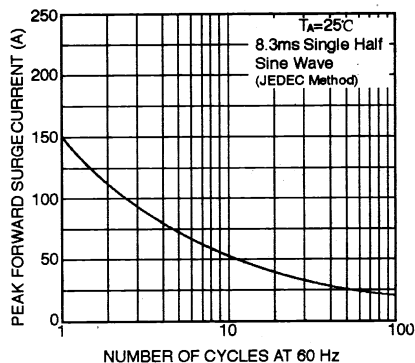


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

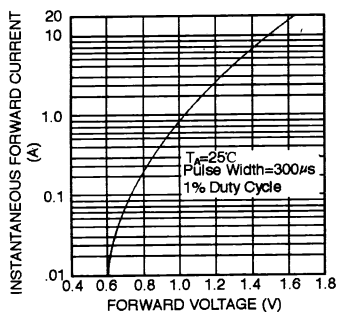


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

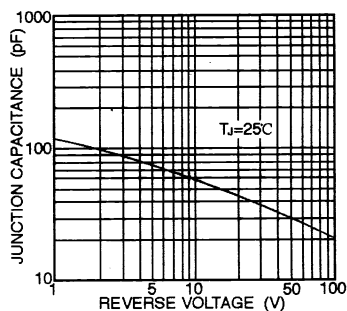


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY SET TIME BASE FOR

