

# MR850 THRU MR856

## 3.0 AMP 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 guranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 1.10 grams

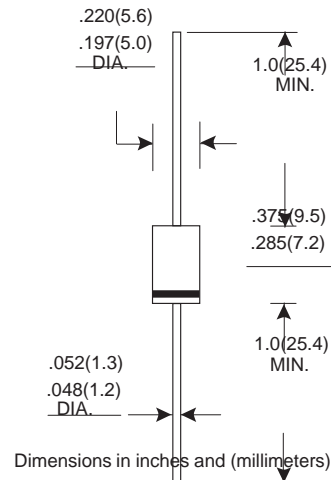
### VOLTAGE RANGE

50 to 600 Volts

### CURRENT

3.0 Amperes

#### DO-27



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25 C ambient temperature unieess otherwies specified.  
 Single phase half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

TYPE NUMBER	MR850	MR851	MR852	MR854	MR856	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	V
Maximum RMS Voltage	35	70	140	280	480	V
Maximum DC Blocking Voltage	50	100	200	400	600	V
Maximum Average Forward Rectified Current						
.375"(9.5mm) Lead Length at Ta=75 C	3.0					A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	200					A
Maximum Instantaneous Forward Voltage at 3.0A	1.25					V
Maximum DC Reverse Current Ta=25 C	5.0					μA
at Rated DC Blocking Voltage Ta=100 C	150					μA
Maximum Reverse Recovery Time (Note 1)	150					nS
Typical Junction Capacitance (Note 2)	60					pF
Operating and Storage Temperature Range Tj, Tstg	-65 — +150					C

#### NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (MR850 THRU MR856)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

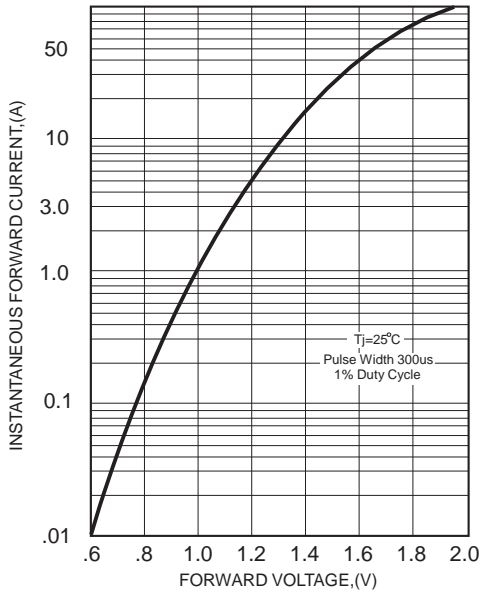


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

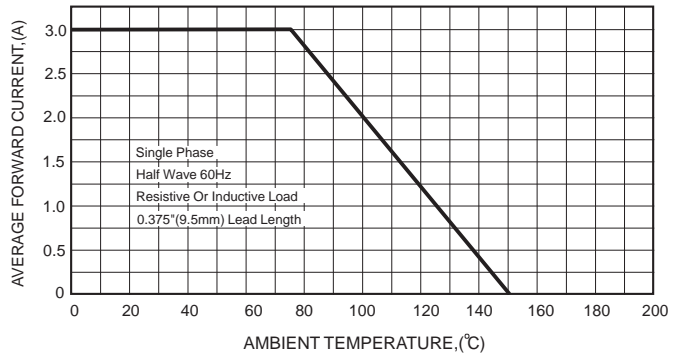


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

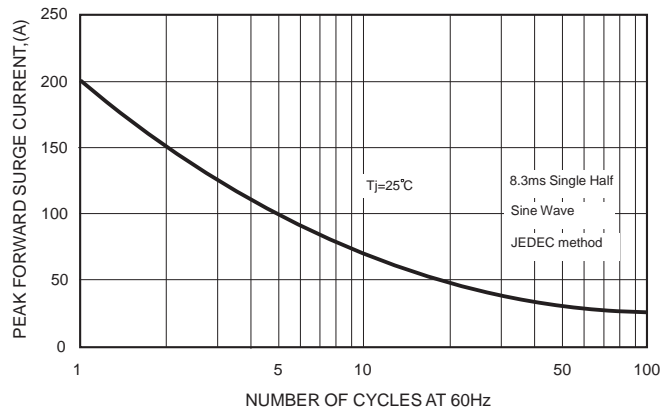
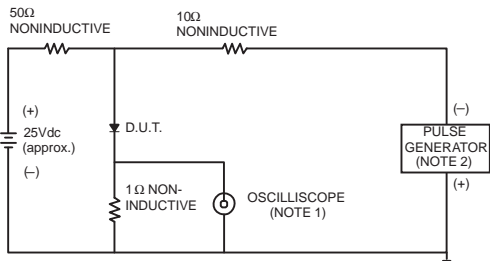


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance=50 ohms.

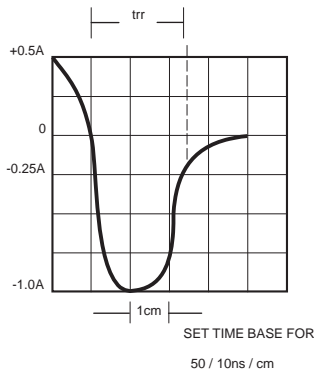


FIG.5-TYPICAL JUNCTION CAPACITANCE

