

# MR850 - MR858

**PRV : 50 - 600 Volts**

**Io : 3.0 Amperes**

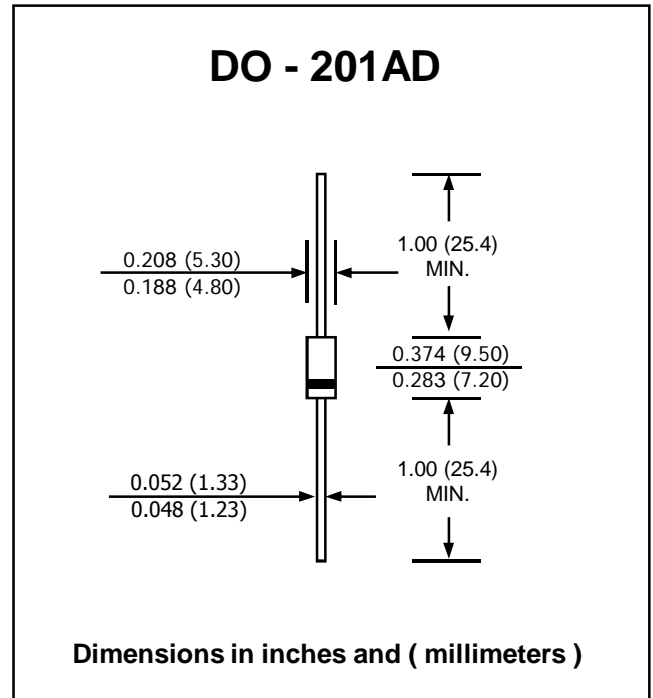
## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case : DO-201AD Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 1.16 grams

# FAST RECOVERY RECTIFIER DIODES



## 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%.

RATING	SYMBOL	MR850	MR851	MR852	MR854	MR856	MR858	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 90 °C	IF(AV)	3.0						A
Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	IFSM	100						A
Maximum Peak Forward Voltage at IF = 3.0 A	VF	1.25						V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 100 °C	IR	10						μA
	IR(H)	150						μA
Maximum Reverse Recovery Time ( Note 1 )	Trr	150						ns
Typical Junction Capacitance ( Note 2 )	CJ	28						pf
Junction Temperature Range	TJ	- 65 to + 150						°C
Storage Temperature Range	TSTG	- 65 to + 150						°C

### Notes :

- ( 1 ) Reverse Recovery Test Conditions : IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 VDC

## RATING AND CHARACTERISTIC CURVES ( MR850 - MR858 )

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

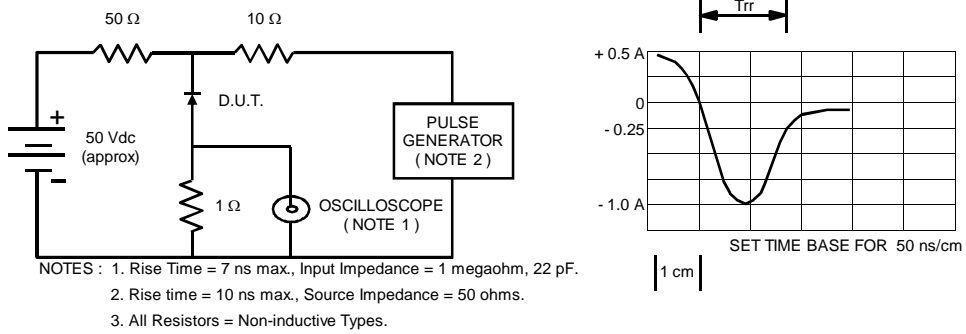


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

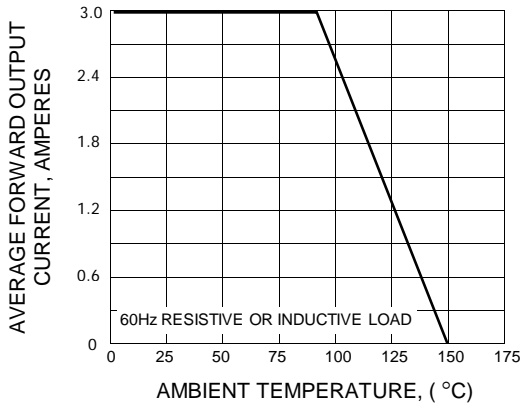


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

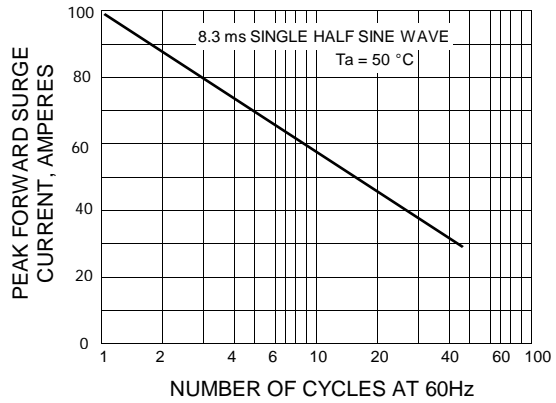


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

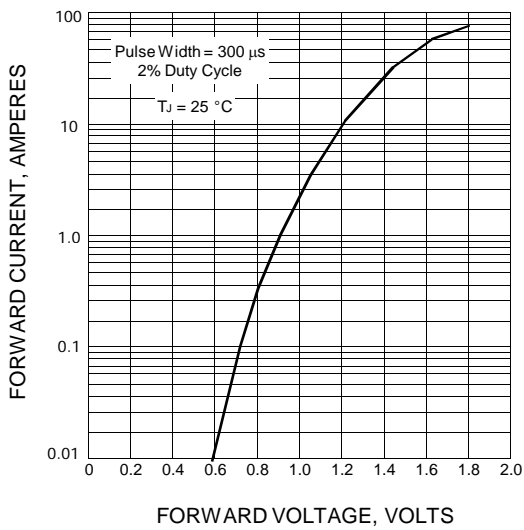


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

