

# MR2500 - MR2512

**PRV : 50 - 1200 Volts**  
**I<sub>o</sub> : 25 Amperes**

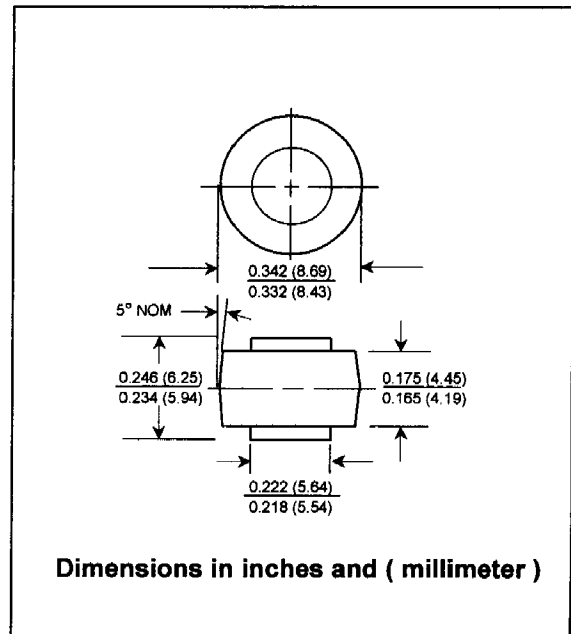
## FEATURES :

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

## MECHANICAL DATA :

- \* Case : Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Terminals : Terminal are readily solderable
- \* Polarity : Cathode polarity band
- \* Mounting position : Any
- \* Weight : 1.624 grams

# AUTOMOTIVE 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%.

Characteristic	Symbol	MR2500	MR2501	MR2502	MR2504	MR2506	MR2510	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	50	100	200	400	600	1000	Volts
Non-Repertitive Peak Reverse Voltage (Halfwave, single phase, 60 Hz peak)	$V_{RSM}$	60	120	240	480	720	1200	Volts
Average Rectified Forward Current (Single phase, resistive load, 60 Hz, $T_C = 150^\circ\text{C}$ )	$I_O$	25						Amps
Non-Repertitive Peak Surge Current (Surge applied at rated load conditions, halfwave, single phase, 60 Hz)	$I_{FSM}$	400 (for 1 cycle)						Amps
Operating and Storage Junction Temperature Range	$T_J, T_{stg}$	- 65 to +175						°C

### THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case (Single Side Cooled)	$R_{\theta JC}$	1.0	°C/W

### ELECTRICAL CHARACTERISTICS

Characteristics and Conditions	Symbol	Max	Unit
Maximum Instantaneous Forward Voltage ( $i_F = 78.5$ Amps, $T_C = 25^\circ\text{C}$ )	$V_F$	1.18	Volts
Maximum Reverse Current (rated dc voltage) $T_C = 25^\circ\text{C}$ $T_C = 100^\circ\text{C}$	$I_R$	100 500	$\mu\text{A}$