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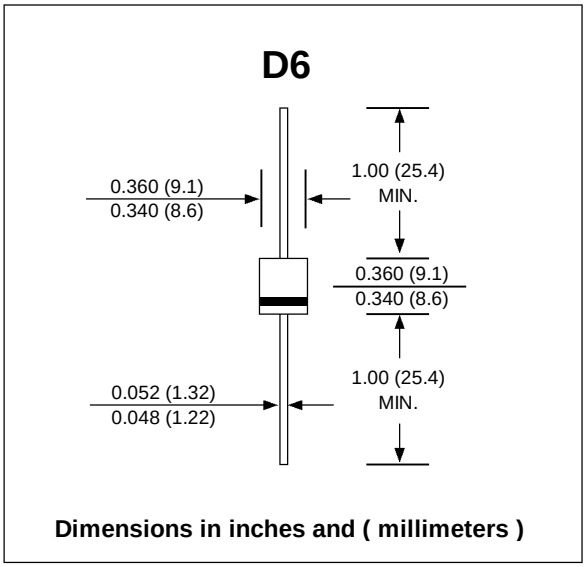
# MR750 - MR760

# AUTOMOTIVE RECTIFIER DIODES

## PRV : 50 - 1000 Volts
## Io : 22 Amperes




**Dimensions in inches and ( millimeters )**

### FEATURES :

* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* Pb / RoHS Free

### MECHANICAL DATA :

* Case : 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 : 2.049 grams

### 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 | MR 750 | MR 751 | MR 752 | MR 754 | MR 756 | MR 758 | MR 760 | UNIT |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Working Peak Reverse Voltage | $V_{RWM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Non-Repetitive Peak Reverse Voltage (Halfwave, single phase , 60Hz peak) | $V_{RSM}$ | 60 | 120 | 240 | 480 | 720 | 960 | 1200 | V |
| Maximum RMS Reverse Voltage | $V_{R(RMS)}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum Average Rectified Forward Current (Halfwave, single phase , 60Hz peak) | $I_{F(AV)}$ | 22 ($T_L$ = 60 °C , 1/8" Lead Lengths) 6 (Ta = 60 °C , P.C. Board mounting) | | | | | | | A |
| Maximum Non-Repetitive Peak Forward Surge Current (surge applied at rated load conditions) | $I_{FSM}$ | 400 (for 1 cycle) | | | | | | | A |
| Maximum Instantaneous Forward Voltage Drop ( $i_F$ = 100 A, $T_J$ = 25°C ) | $v_F$ | 1.25 | | | | | | | V |
| Maximum Forward Voltage Drop ( $I_F$ = 6.0 A, Ta = 25°C , 3/8" leads ) | $V_F$ | 0.9 | | | | | | | V |
| Maximum Reverse Current $T_J$ = 25 °C | $I_R$ | 25 | | | | | | | µA |
| ( at rated dc Voltage ) $T_J$ = 100 °C | | 1.0 | | | | | | | mA |
| Junction Temperature Range | $T_J$ | - 65 to + 175 | | | | | | | °C |
| Storage Temperature Range | $T_{STG}$ | - 65 to + 175 | | | | | | | °C |

## RATING AND CHARACTERISTIC CURVES ( MR750 - MR760 )

**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**

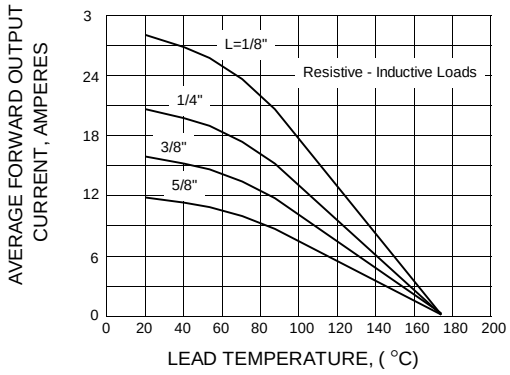



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**

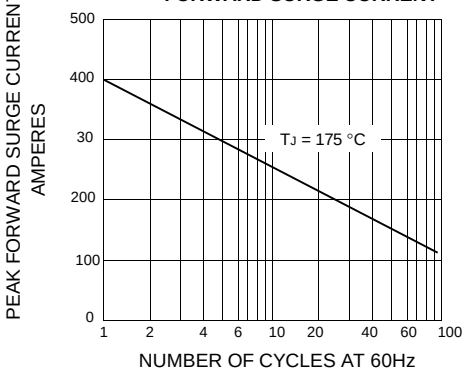



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**

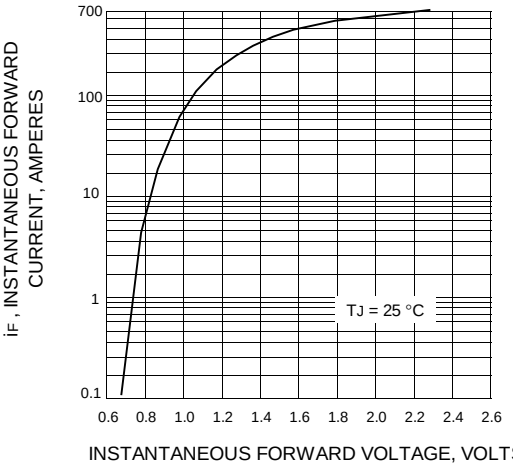



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**