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AM2501  
THRU  
AM2512

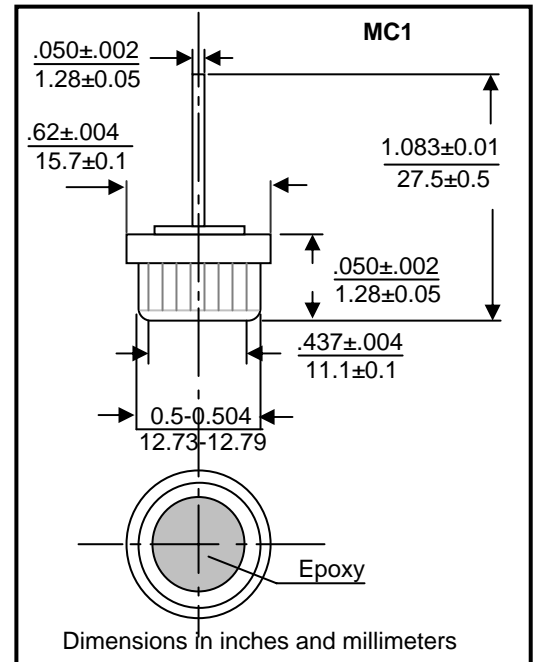
### Features

- Low leakage
- Low forward voltage drop
- High current capability
- High forward surge current capability

**HIGH VOLTAGE PRESS FIT  
DIODE FOR AUTOMOTIVE  
RECTIFIER(MOTOROLA)  
VOLTAGE RANGE  
100 TO 1200 VOLTS  
CURRENT 25AMPS**

### Mechanical Data

- Case: Copper case
- Technology: cell with vacuum soldered
- Polarity: As marked of case bottom
- Lead: Plated lead, solderable per MIL-STD-202E method 208C
- Mounting: Press fit
- Weight: 9.0 grams



### Maximum Ratings and Electrical Characteristics

- Rating at 25°C ambient temperature unless otherwise specified
- Single phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

| Parameters  | Symbols         | AM2501      | AM2502 | AM2504 | AM2506 | AM2508 | AM2510 | AM2512 | Units            |
|---|-----------------|-------------|--------|--------|--------|--------|--------|--------|------------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$       | 100         | 200    | 400    | 600    | 800    | 1000   | 1200   | Volts            |
| Maximum RMS voltage   | $V_{RMS}$       | 70          | 140    | 280    | 420    | 560    | 700    | 840    | Volts            |
| Maximum DC blocking voltage   | $V_{DC}$        | 100         | 200    | 400    | 600    | 800    | 1000   | 1200   | Volts            |
| Maximum Average rectified forward current at $T_C=110^\circ C$                                    | $I_o$           | 25          |        |        |        |        |        |        | Amps             |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JE DEC Method) | $I_{FSM}$       | 300         |        |        |        |        |        |        | Amps             |
| Rating for fusing( $t<8.3ms$ )  | $I^2t$          | 374         |        |        |        |        |        |        | A <sup>2</sup> S |
| Maximum instantaneous forward voltage drop at 35A   | $V_F$           | 1.0         |        |        |        |        |        |        | Volts            |
| Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=150^\circ C$        | $I_R$           | 5.0         |        |        |        |        |        |        | uA               |
| Typical thermal resistance  | $R_{\theta JC}$ | 1.0         |        |        |        |        |        |        | °C/W             |
| Operating and storage temperature   | $T_J, T_{STG}$  | -65 to +175 |        |        |        |        |        |        | °C               |

Notes: 1.Enough heatsink must be considered in application.

# AM2501 THRU AM2512

## Ratings and Characteristic Curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

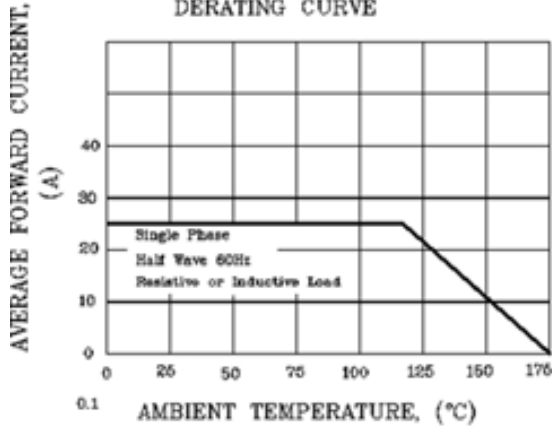


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

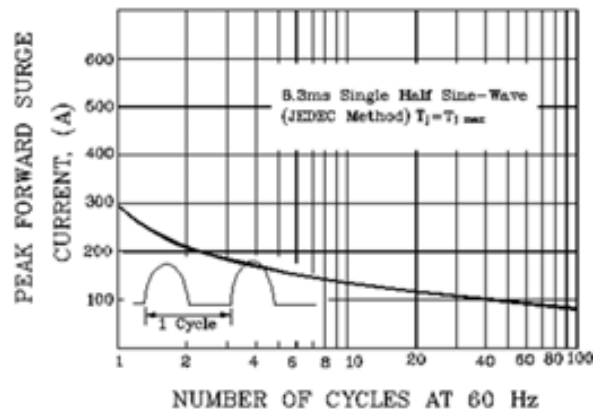


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

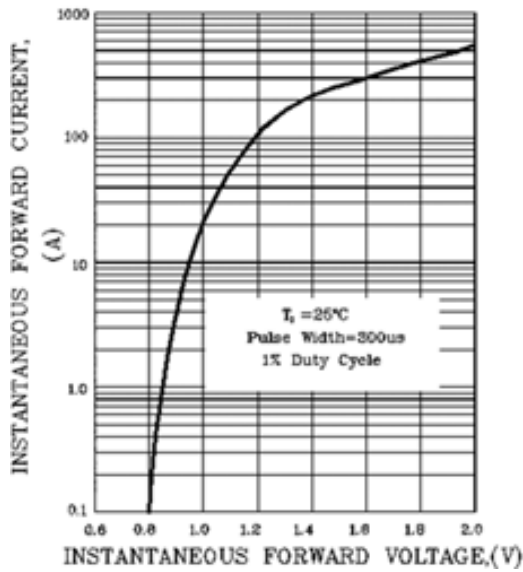


FIG.4- FORWARD POWER DISSIPATION

