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AM5001  
THRU  
AM5012

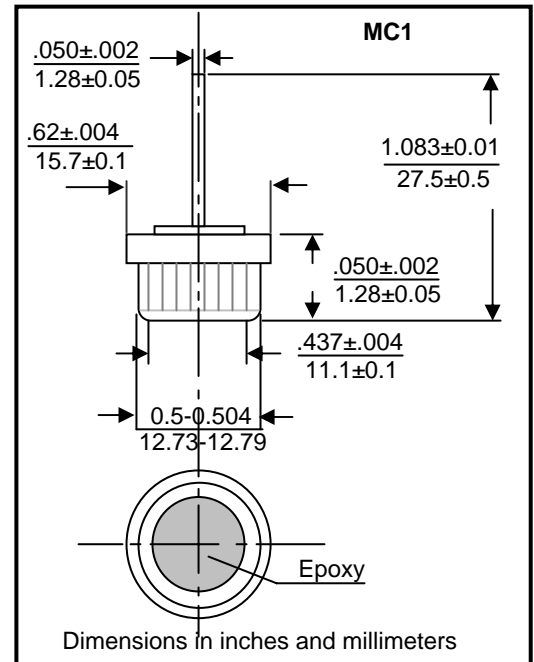
### Features

- 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 50AMPS**

### 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	AM5001	AM5002	AM5004	AM5006	AM5008	AM5010	AM5012	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 $T_C=110^\circ C$	$I_o$	50							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JE DEC Method)	$I_{FSM}$	400							Amps
Rating for fusing( $t<8.3ms$ )	$I^2t$	664							A <sup>2</sup> S
Maximum instantaneous forward voltage drop at 50A	$V_F$	1.05							Volts
Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=150^\circ C$	$I_R$	5.0 500							$\mu A$
Typical thermal resistance	$R_{\theta JC}$	1.0							$^\circ C/W$
Operating and storage temperature	$T_J, T_{STG}$	-65 to +175							$^\circ C$

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

# AM5001 THRU AM5012

## Ratings and Characteristic Curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

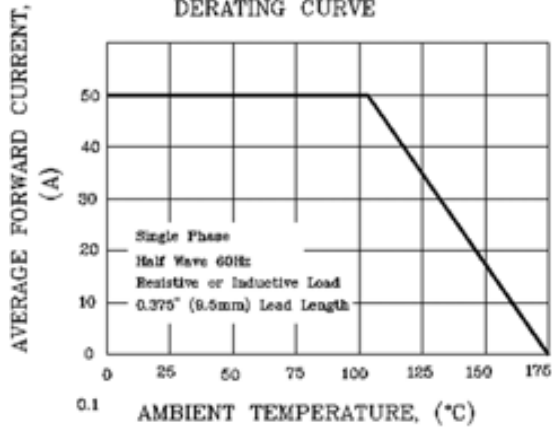


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

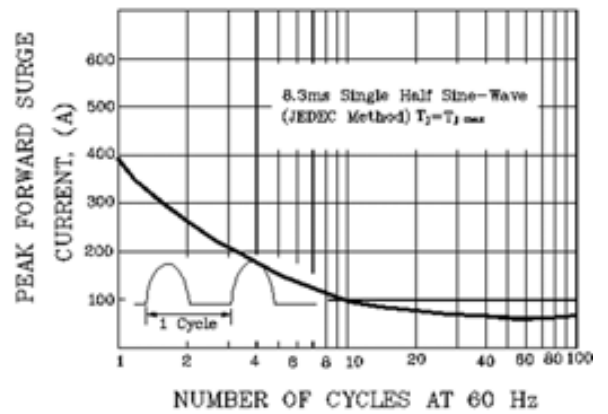


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

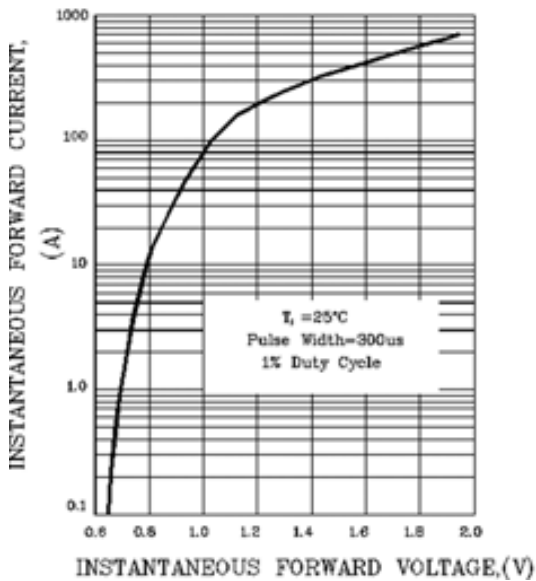


FIG.4- FORWARD POWER DISSIPATION

