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AMS501  
THRU  
AMS506

**Features**

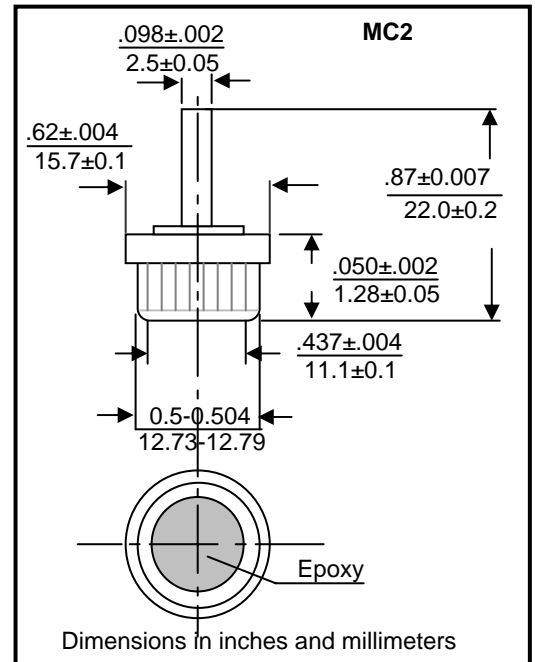
- Low leakage
- Low forward voltage drop
- High current capability
- High forward surge current capability

**PRESS FIT AUTOMOTIVE  
RECTIFIER(MOTOROLA)**

**VOLTAGE RANGE  
100 TO 600 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: 8.75 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	AMS501	AMS502	AMS503	AMS504	AMS506	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	200	300	400	600	Volts
Maximum RMS voltage	$V_{RMS}$	70	140	210	280	420	Volts
Maximum DC blocking voltage	$V_{DC}$	100	200	300	400	600	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)	$I_{FSM}$	500					Amps
Rating for fusing( $t<8.3ms$ )	$I^2t$	1494					$A^2S$
Maximum instantaneous forward voltage drop at 100A	$V_F$	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					$\mu A$
Typical thermal resistance	$R_{\theta JC}$	0.8					$^\circ C/W$
Operating and storage temperature	$T_J, T_{STG}$	-65 to +175					$^\circ C$

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

# AMS501 THRU AMS506

## Ratings and Characteristic Curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

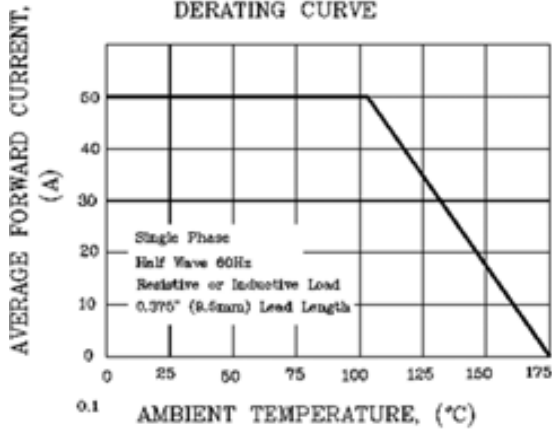


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

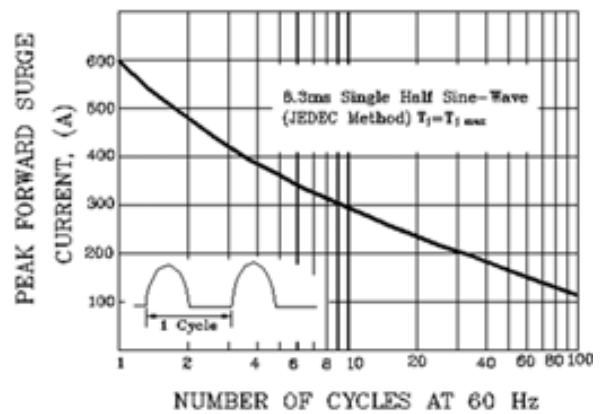


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

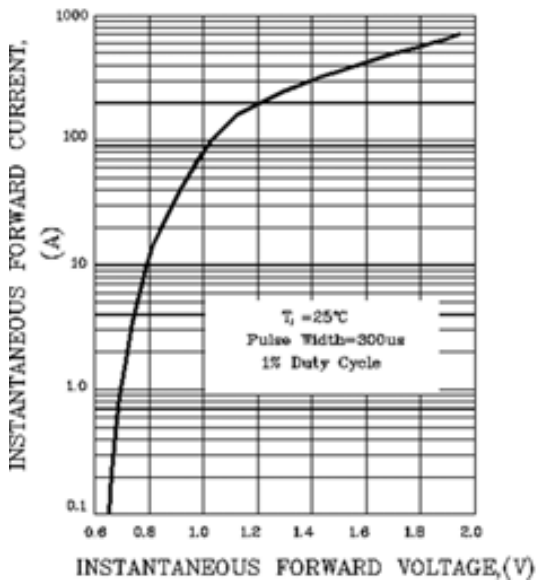


FIG.4- FORWARD POWER DISSIPATION

