



## ABM5005 THRU ABM510

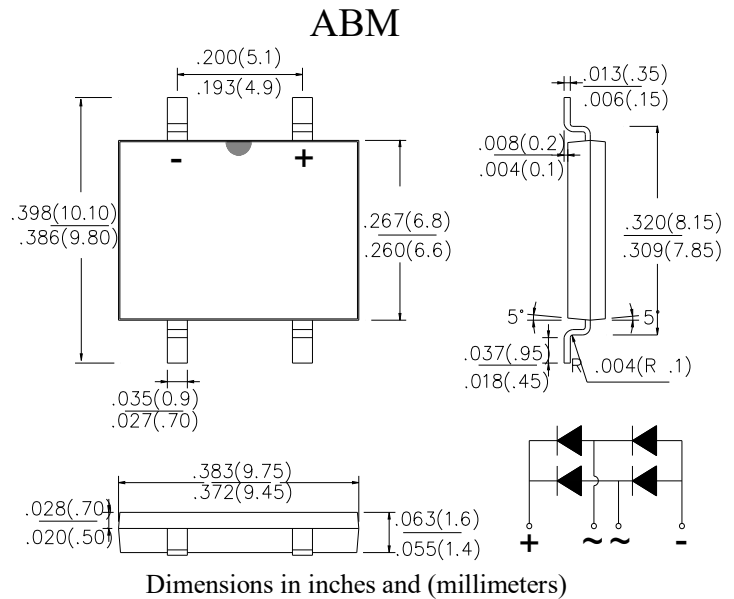
PINGWEI ENTERPRISE SINGLE PHASE 54.0AMPS. GLASS PASSIVATED BRIDGE RECTIFIERS

### FEATURE

- . Glass passivated chip junctions
- . High case dielectric strength
- . Low Reverse Leakage Current
- . High surge current capability
- . Ideal for Printed Circuit Board Applications
- . High temperature soldering guaranteed:  
260°C/10 seconds at terminals.

### MECHANICAL DATA

- . Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0
- . Terminals: Pure tin plated, Lead free.
- Leads solderable per MIL-STD-750, Method 2026.
- . Polarity: Molded on Body
- . Weight: 0.3 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	SYM BOL	ABM 5005	ABM 501	ABM 502	ABM 504	ABM 506	ABM 508	ABM 510	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Average Forward Rectified Current at $T_A=25^\circ\text{C}$	$I_{F(AV)}$	5.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	150							A
Maximum Forward Voltage @ 3.0A DC	$V_F$	1.1							V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at rated DC blocking voltage @ $T_J=125^\circ\text{C}$	$I_R$	5.0 500.0							$\mu\text{A}$
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	93							$\text{A}^2\text{Sec}$
Typical Junction Capacitance (Note 1)	$C_J$	50							pF
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	6.5							$^\circ\text{C}/\text{W}$
Storage Temperature	$T_{STG}$	-55 to +150							$^\circ\text{C}$
Operating Junction Temperature	$T_J$	-55 to +150							$^\circ\text{C}$

#### Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.

# RATING AND CHARACTERISTIC CURVES (ABM5005 THRU ABM510)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

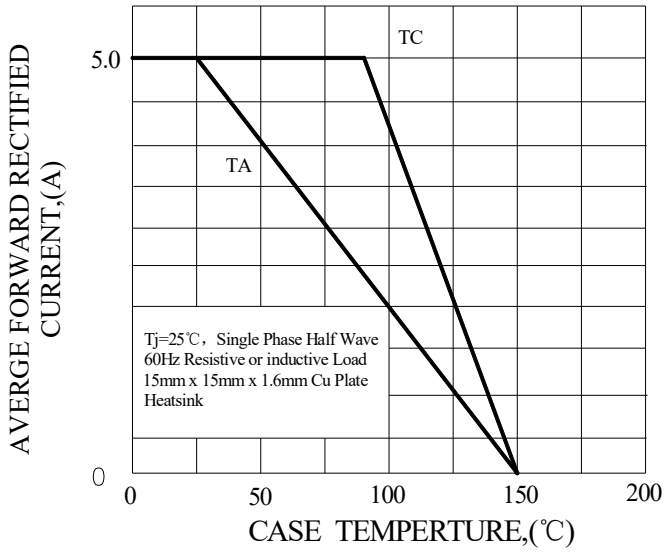


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

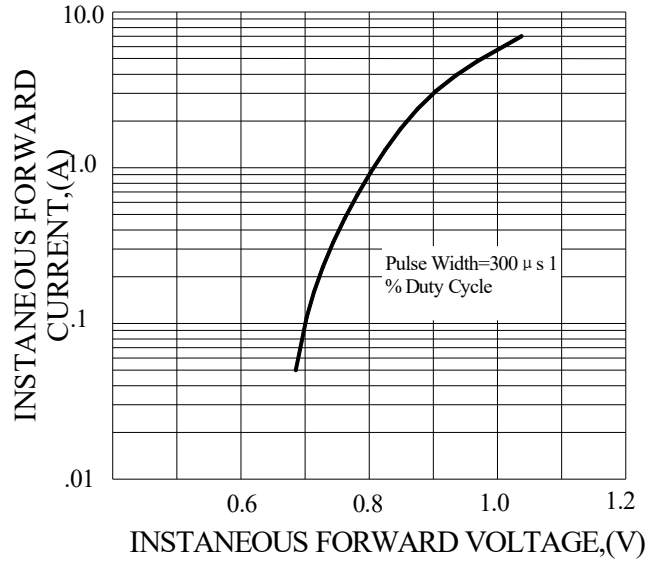


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

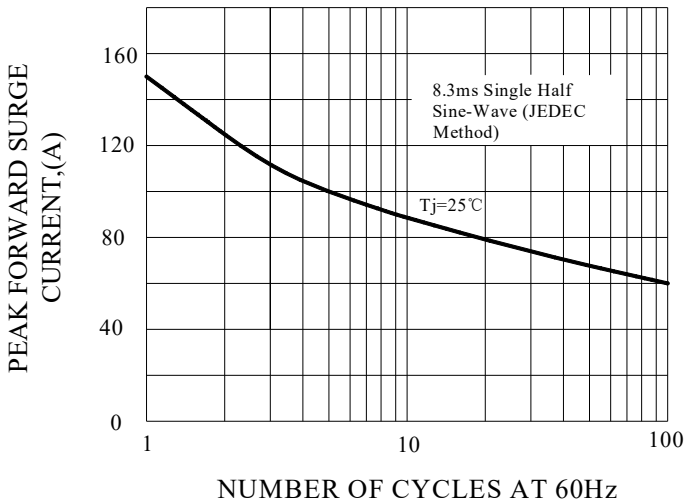


FIG.4-TYPICAL REVERSE CHARACTERISTICS

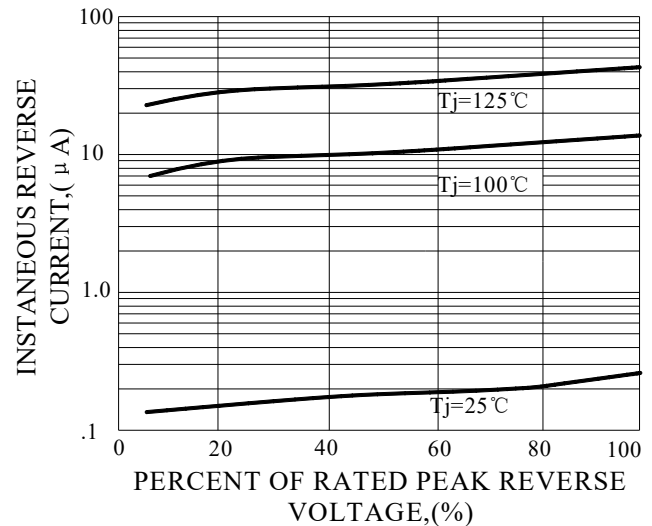
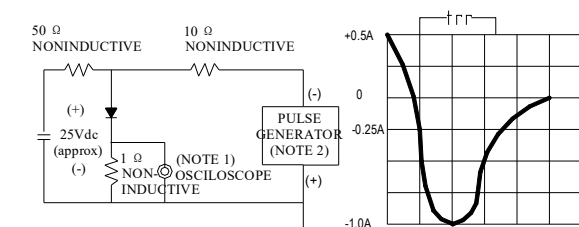


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time=7ns max, Input Impedance= 1 megohm.22pF.  
2. Rise Time=10ns max, Source Impedance= 50 ohms.

FIG.6-TYPICAL JUNCTION CAPAOTANCE

