

## ABMR410

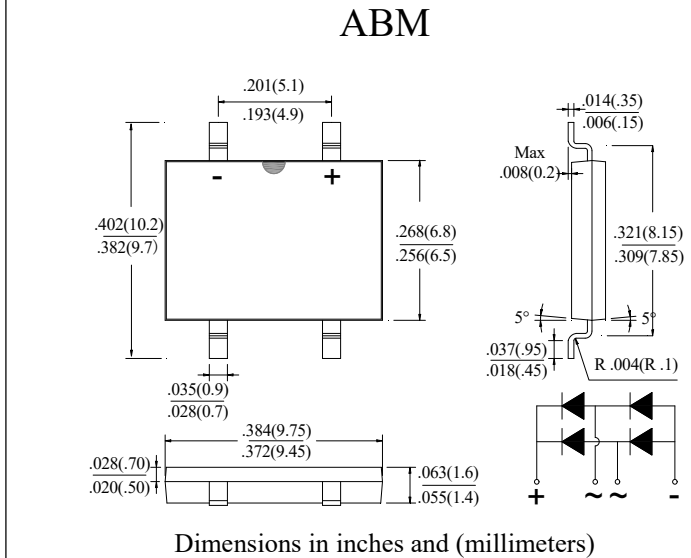
### SINGLE PHASE 4.0AMPS.GLASS PASSIVATED FAST BRIDGE RECTIFIERS

#### FEATURE

- . Fast switching
- . 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. Halogen-free.  
UL Flammability Classification Rating 94V-0
- . Terminals: Pure tin plated, Lead free.  
Leads solderable per MIL-STD-750, Method 2026.
- . Polarity:As marked on the body



Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

#### MAXIMUM RATINGS (T<sub>C</sub>=25°C unless otherwise noted)

Parameter	Symbol	ABMR410	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum RMS Voltage	$V_{RMS}$	700	V
Maximum DC blocking Voltage	$V_{DC}$	1000	V
Average Forward Rectified Current at T <sub>A</sub> =25°C	$I_{F(AV)}$	4	A
Non-repetitive forward surge current, 8.3ms half sine-wave	$I_{FSM}$	120	A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	$I^2t$	59	A <sup>2</sup> Sec
Operation Junction Temperature and Storage Temperature	$T_J, T_{STG}$	-55 to + 150	°C

#### ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless otherwise noted)

Parameter	Symbol	Min	Typ	Max	Units
Instantaneous Forward voltage at 4A	$V_F$	-----	1.1	1.3	V
		-----	0.98	-----	
reverse current at rated DC blocking voltage	$I_R$	-----	0.2	5.0	uA
		-----	60	100.0	
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	-----	-----	500	nS
Typical Junction Capacitance (Note 2)	$C_J$	-----	40	-----	pF

#### THERMAL CHARACTERISTICS (T<sub>C</sub>=25°C unless otherwise noted)

Parameter	Symbol	ABMR410	Units
Typical Thermal Resistance (Note 3)	$R_{(JA)}$	75	°C/W
	$R_{(JC)}$	7.0	

- Note:**
1. Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A
  2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
  3. Measured on P.C.Board with 15.0mm\*15.0mm\*1.6mm Copper Pad Areas

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

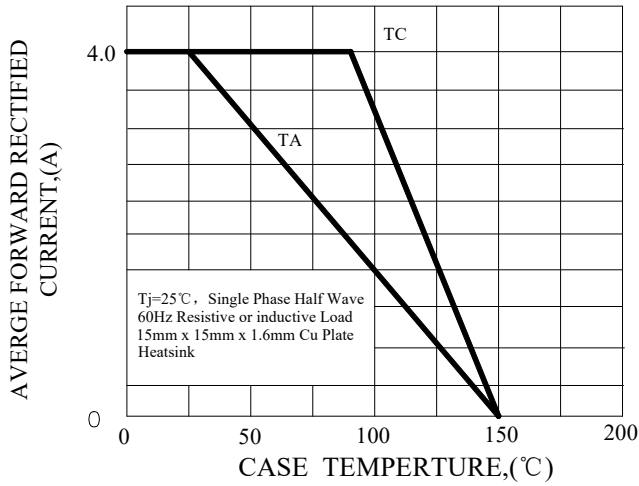


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

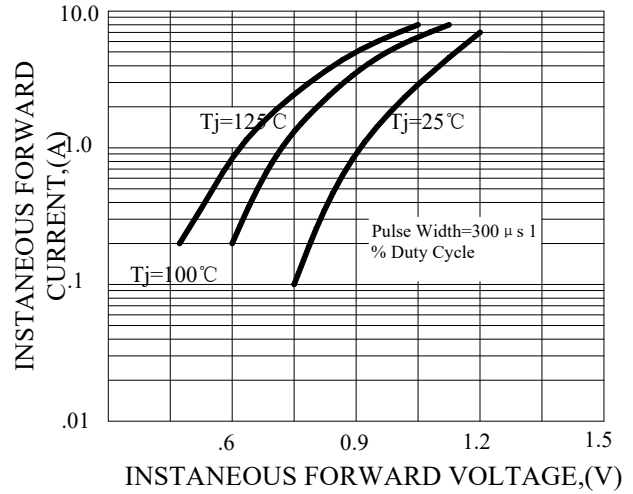


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

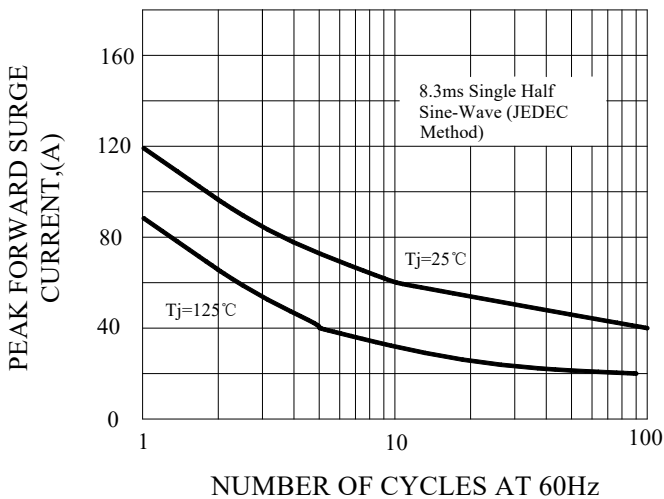


FIG.4-TYPICAL REVERSE CHARACTERISTICS

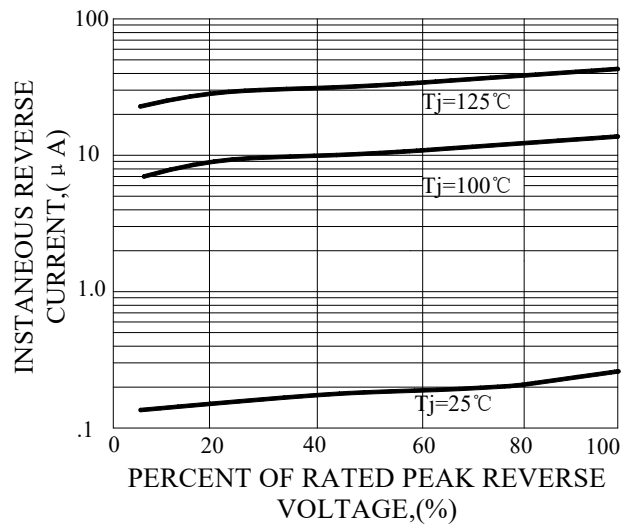
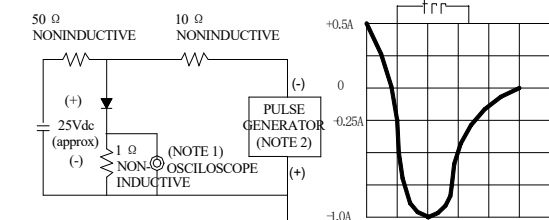
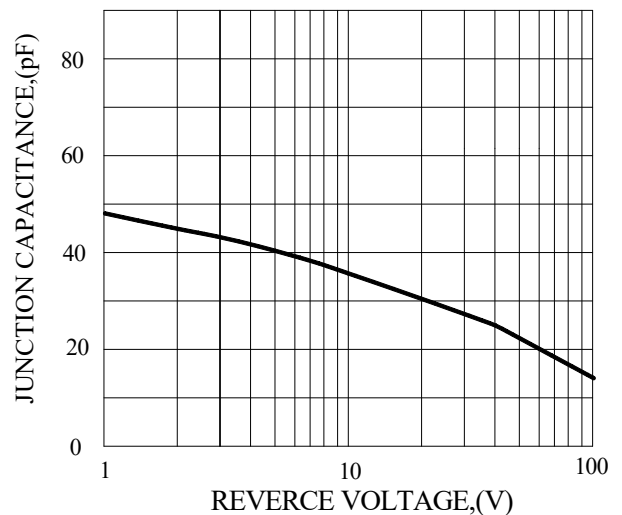


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



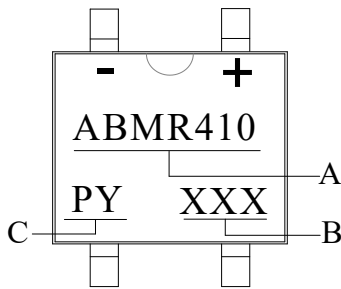
NOTES: 1. Rise Time=7ns max, Input Impedance= 1 megohm, 22pF.  
2. Rise Time=10ns max, Source Impedance= 50 ohms.

FIG.6-TYPICAL JUNCTION CAPACITANCE



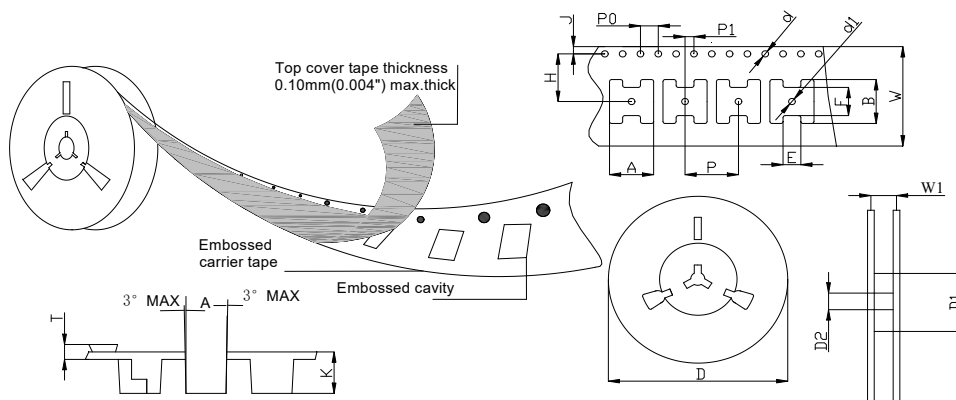
## Marking and packaging illustration

### 1、Marking



SYMBOL	Explanation
<b>A</b>	<b>Product Name</b>
<b>B</b>	<b>Date Code</b>
<b>C</b>	<b>Trademark</b>

### 2、Packaging



SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYM BOL	ABM	ITEM	SYM BOL	ABM
Carrier width	A	10.2(0.402)Max	Sprocket hole position	J	1.75(0.069)Typ
Carrier length	B	10.3(0.406)Max	Punch hole position	H	7.50(0.296)Typ
Sprocket hole	d	ø1.6(0.063)Typ	Carrier depth	K	2.0(0.079)Typ
Ejector hole	d1	ø1.6(0.063)Typ	Punch hole pitch	P	12.00(0.472)Typ
Reel outer diameter	D	330.0(13.0)Typ	Sprocket hole pitch	P0	4.00(0.157)Typ
Reel inner diameter	D1	75.0(2.953)Min	Embossment center	P1	2.00(0.079)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Overall tape thickness	T	0.35(0.014)Typ
Reserve pin spacing	E	4.00(0.157)Typ	Tape width	W	24.0(0.945)Typ
Reserve Shell width	F	6.80(0.268)Typ	Reel width	W1	25.5(1.004)Min