

ABSR10

SINGLE PHASE 1.0A MPS. GLASS PASSIVATED FAST BRIDGE RECTIFIERS

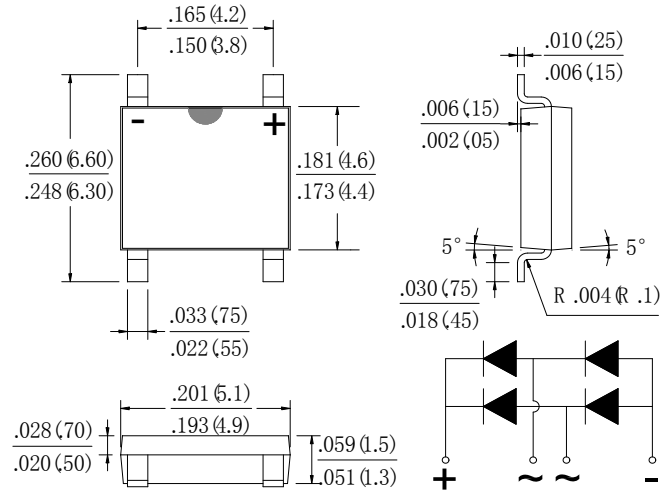
FEATURE

- . Glass passivated junction.
- . Ideal for printed circuit board.
- . Reliable low cost construction utilizing molded plastic technique.
- . High surge current capability.
- . High temperature soldering guaranteed: 260°C/10 seconds at terminals.
- . Small size, simple installation.

MECHANICAL DATA

- . Case: Molded plastic
- . Epoxy: UL 94V-0 rate flame retardant
- . Lead: MIL-STD- 202E, Method 208 guaranteed
- . Polarity: As marked

ABS



Dimensions in inches and (millimeters)

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	ABSR10	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
Maximum Average Forward rectified Current	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current times at 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	30	A
Maximum Instantaneous Forward Voltage @0.4A DC @1.0A DC	V_F	1.25 1.30	V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at rated DC blocking voltage @ $T_J=125^\circ\text{C}$	I_R	5.0 200.0	μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	500	nS
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	3.735	A^2Sec
Typical Junction Capacitance Per Leg (Note2)	C_J	10	pF
Typical Thermal Resistance (Note3)	R_{JA}	65	$^\circ\text{C}/\text{W}$
	R_{JC}	22	
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$
Operating Junction Temperature	T_J	-55 to +150	$^\circ\text{C}$

Note:

1. Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient mounted on P.C.B with 15×15mm copper pads

RATING AND CHARACTERISTIC CURVES (ABSR10)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

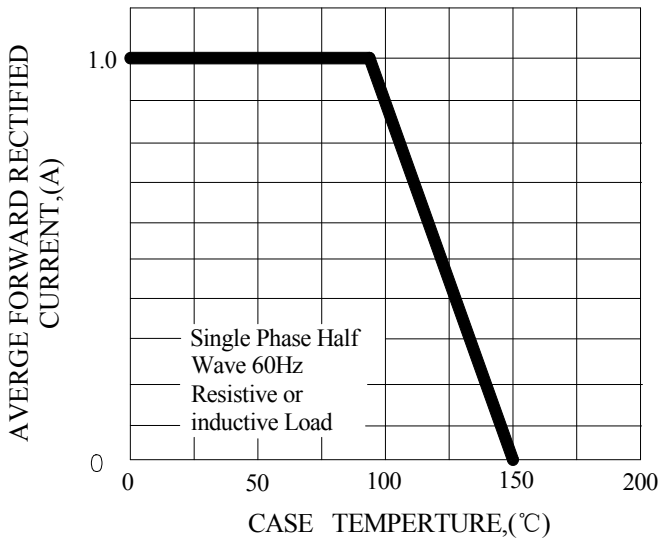


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

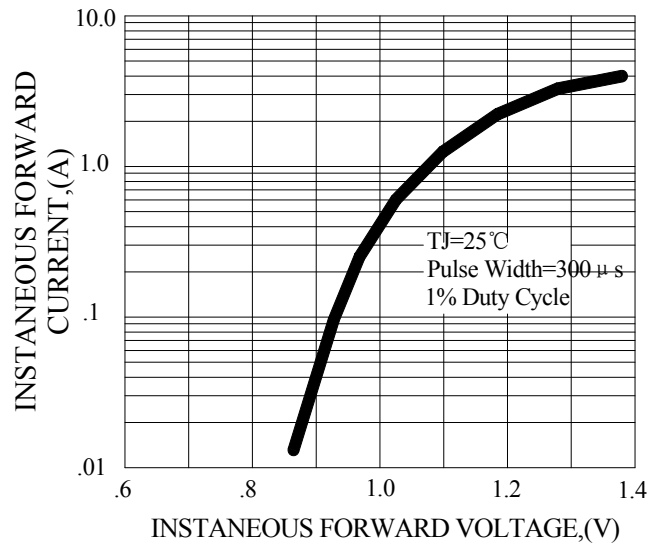


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

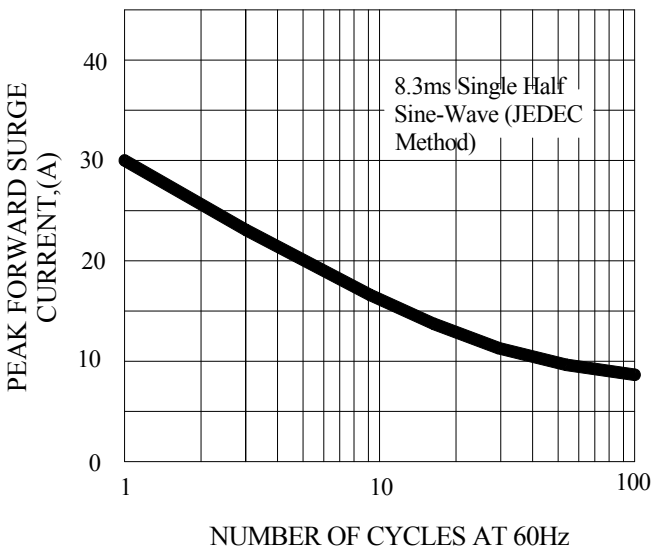


FIG.4-TYPICAL REVERSE CHARACTERISTICS

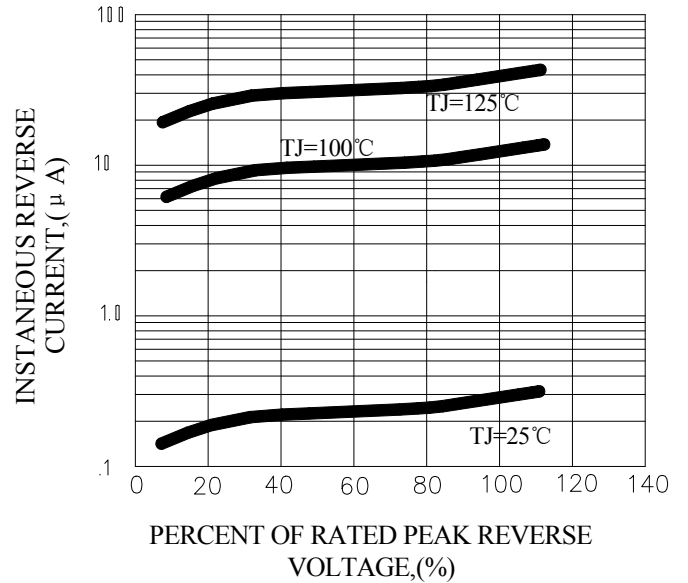
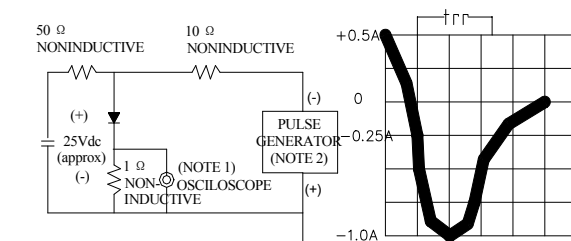


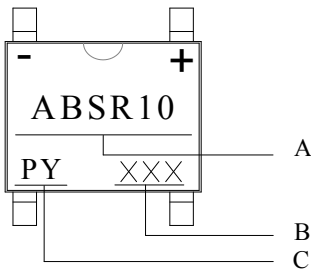
FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

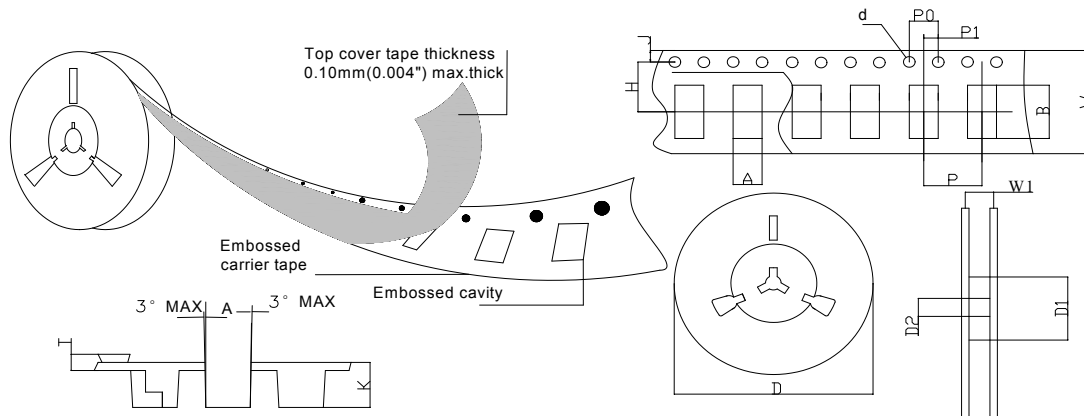
Marking and packaging illustration

1、Marking



SYMBOL	Explanation
A	Product Name
B	Date Code
C	Trademark

2、Packaging



SPECIFICATIONS mm(inch)		PACKAGE
SYMBOL		ABS
ITEM		
Carrier width	A	5.45(0.215)Max
Carrier length	B	7.0(0.276)Max
Sprocket hole	d	ø1.55(0.061)Typ
Reel outer diameter	D	330.0(13.0)Typ
Reel inner diameter	D1	50.0(2.913)Min
Feed hole diameter	D2	13.0(0.512)Typ
Sprocket hole position	J	1.75(0.069)Typ
Punch hole position	H	5.50(0.217)Typ
Carrier depth	K	1.60(0.063)Typ
Punch hole pitch	P	8.00(0.315)Typ
Sprocket hole pitch	P0	4.00(0.157)Typ
Embossment center	P1	2.00(0.079)Typ
Overall tape thickness	T	0.30(0.012)Typ
Tape width	W	12.0(0.472)Typ
Reel width	W1	12.4(0.488)Min