

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

Voltage Range - 200 to 1000 Volts Current - 0.5/0.8 Ampere

Features

- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed: 260°C/10 second at 5 lbs., (2.3kg) tension
- Small size, simple installation
- High surge current capability
- Glass passivated chip junction
- Glass compound (halogen&Sb₂O₃ free)

Mechanical Data

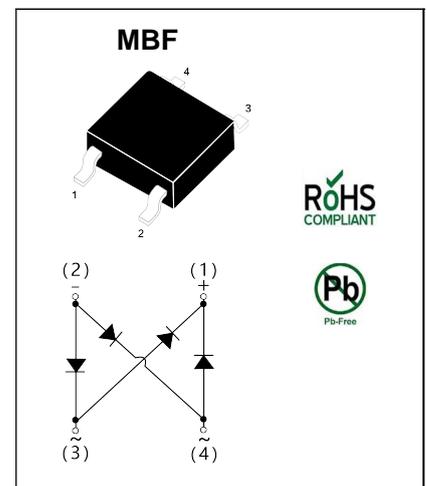
- Case: Molded plastic body
- Terminals: Plated lead solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbols marked on case
- Mounting Position: Any

Specification

Maximum Rating 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%.



	SYMBOLS	MB2F	MB4F	MB6F	MB8F	MB10F	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	200	400	600	800	1000	V
Maximum average forward rectified current On glass-epoxy P.C.B. (Note1) On aluminum substrate (Note2)	I _{F(AV)}	0.5 0.8					A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	30					A
Maximum instantaneous forward voltage drop per leg at 0.4A	V _F	1.0					V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	5.0 500					uA uA
Typical junction capacitance per leg(Note3)	C _J	13					pF
Typical thermal resistance per leg	R _{θJA}	88					°C/W
Operating temperature range	T _J	-55 to +150					°C
storage temperature range	T _{STG}	-55 to +150					°C

NOTES:1.On glass epoxy P.C.B. mounted on 0.05x0.05"(1.3x1.3mm) pads
2.On aluminum substrate P.C.B. with an area of 0.8"x0.8"(20x20mm) mounted on 0.05X0.05"(1.3X1.3mm) solder pad
3.Measured at 1.0MHz and applied reverse voltage of 4.0 volts.

Ratings and characteristic curves MB2F thru MB10F

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT FOR

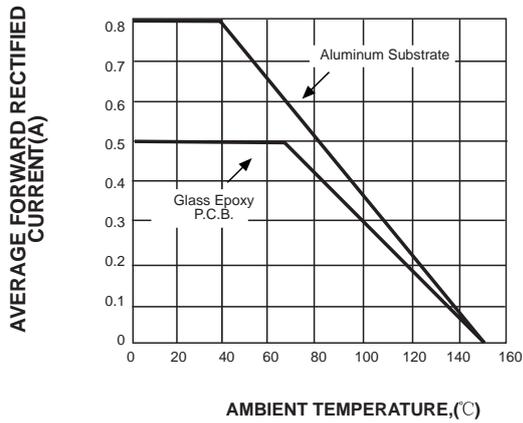


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

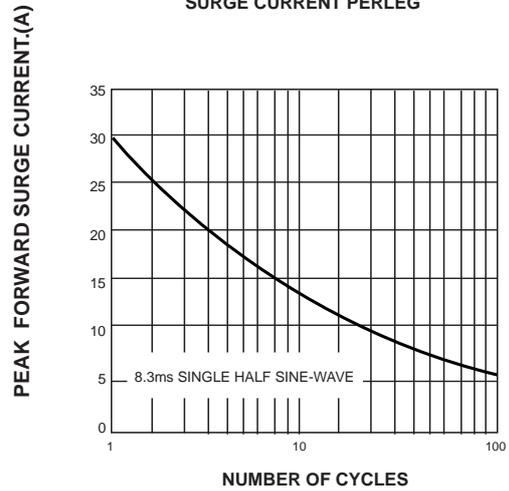


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG

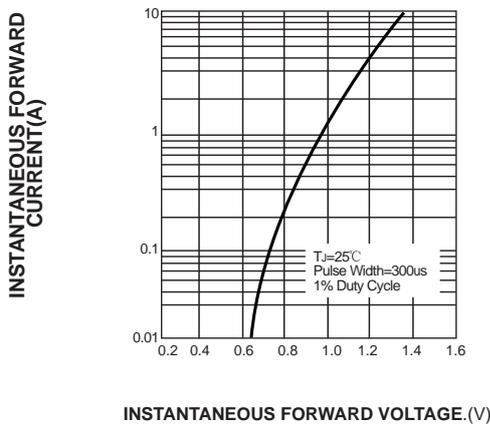


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

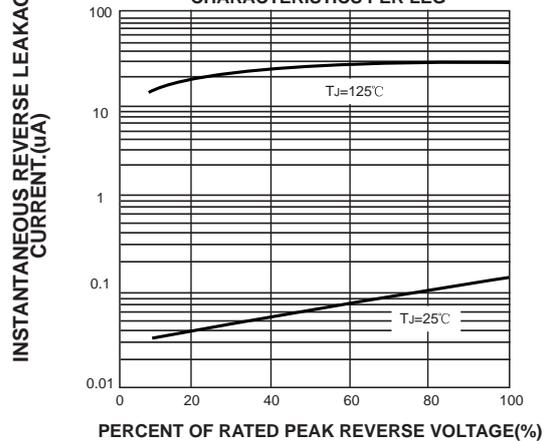
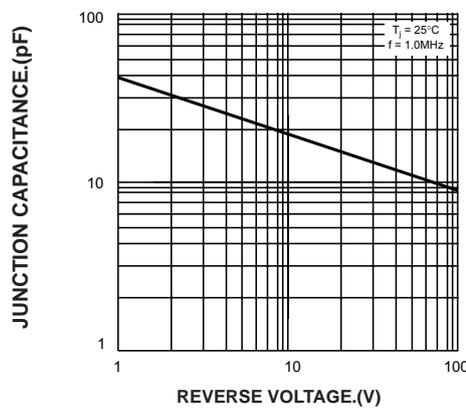
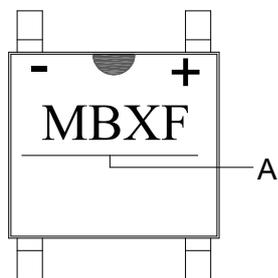


FIG. 5-TYPICAL JUNCTION CAPACITANCE PER LEG

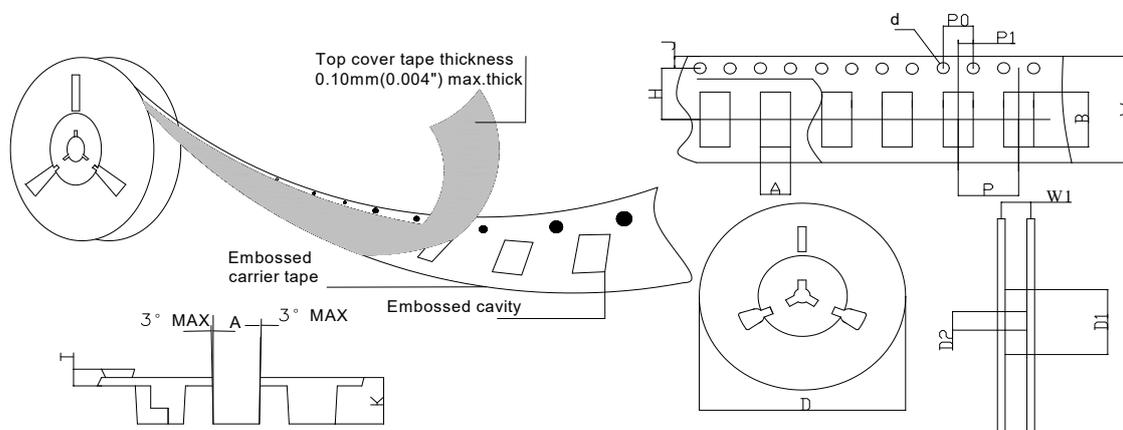


1、Marking



SYMBOL	Explanation
A	Product Name

2、Packaging



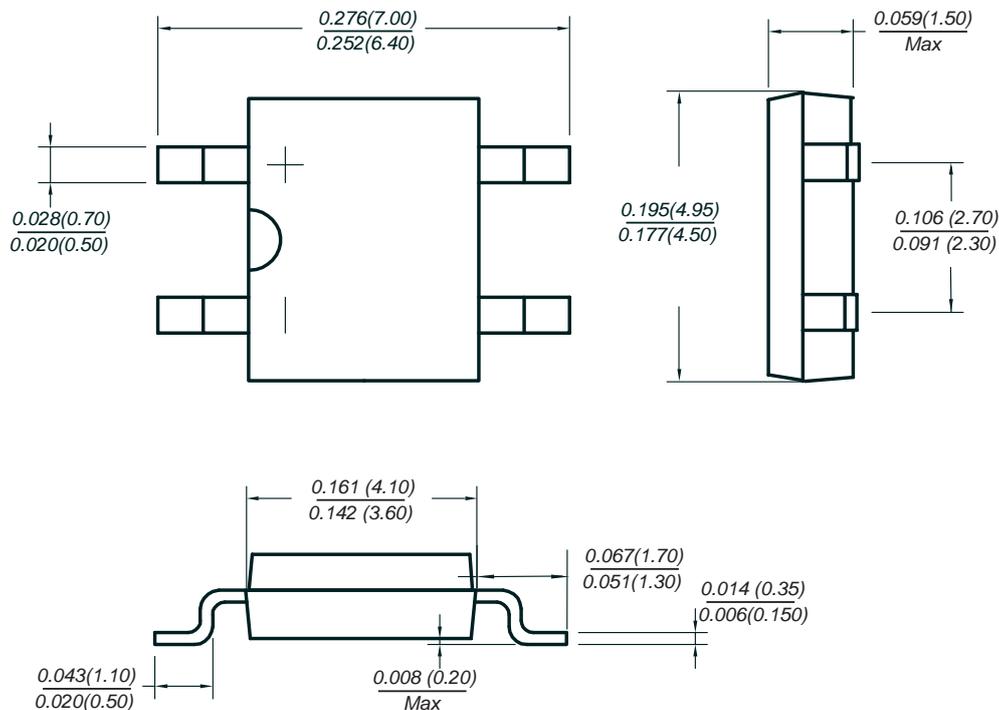
SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYM BOL	MBF	ITEM	SYM BOL	MBF
Carrier width	A	5.15(0.203)Max	Carrier depth	K	2.88(0.113)Typ
Carrier length	B	7.25(0.285)Max	Punch hole pitch	P	8.00(0.315)Typ
Sprocket hole	d	ø1.55(0.061)Typ	Sprocket hole pitch	P0	4.00(0.157)Typ
Reel outer diameter	D	330.0(13.0)Typ	Embossment center	P1	2.00(0.079)Typ
Reel inner diameter	D1	50.0(2.913)Min	Overall tape thickness	T	0.30(0.012)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Tape width	W	12.0(0.472)Typ
Sprocket hole position	J	1.75(0.069)Typ	Reel width	W1	12.4(0.488)Min
Punch hole position	H	5.50(0.217)Typ			

3、Ordering Information

Part Number	Compliance	Case	Packaging
MBXF	Standard	MBF	5000/Tape & Reel

Dimension

MBF



Dimensions in inches and (millimeters)

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