

TMBF310

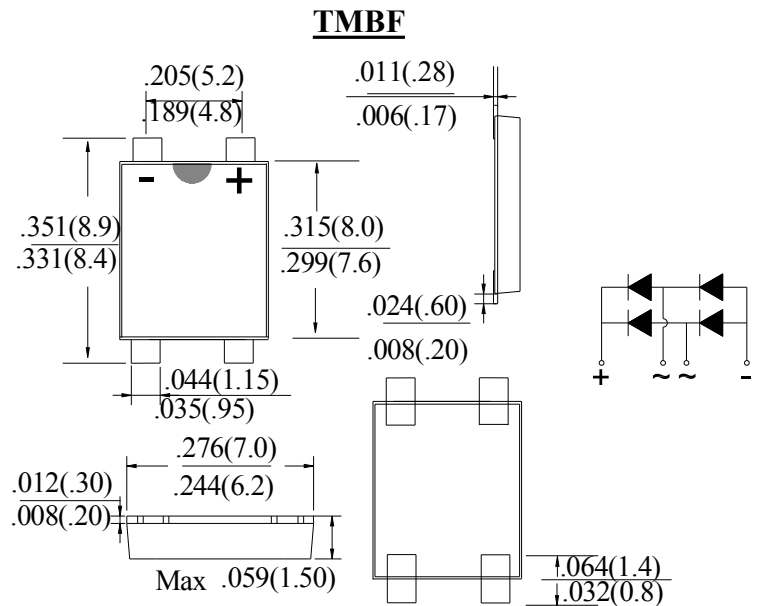
SINGLE PHASE 3.0AMPS. GLASS PASSIVATED BRIDGE RECTIFIERS

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:
250°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



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	SYMBOL	TMBF310	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	$I_{F(AV)}$	3.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	95	A
Forward Voltage	at 3.0A DC	$V_{F Max}$	1.1
	at 1.5A DC	$V_{F Type}$	0.88
Maximum DC Reverse Current @ $T_A = 25^\circ C$ at rated DC blocking voltage @ $T_A = 125^\circ C$	I_R	5.0 100.0	μA
I^2t Rating for Fusing ($t < 8.3ms$)	I^2t	37.45	A ² Sec
Typical Junction Capacitance Per Leg (Note1)	C_J	50	pF
Typical Thermal Resistance (Note2)	R_{JA}	85	°C /W
	R_{JC}	22	
Storage Temperature	T_{STG}	-55 to +150	°C
Operating Junction Temperature	T_J	-55 to +150	°C

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient mounted on P.C.B with 0.38×0.38" (15×15mm) copper pads

RATING AND CHARACTERISTIC CURVES (TMBF310)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

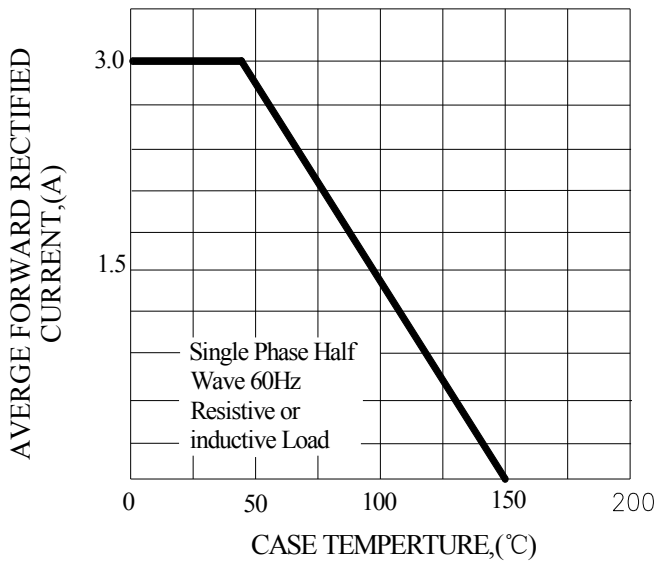


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

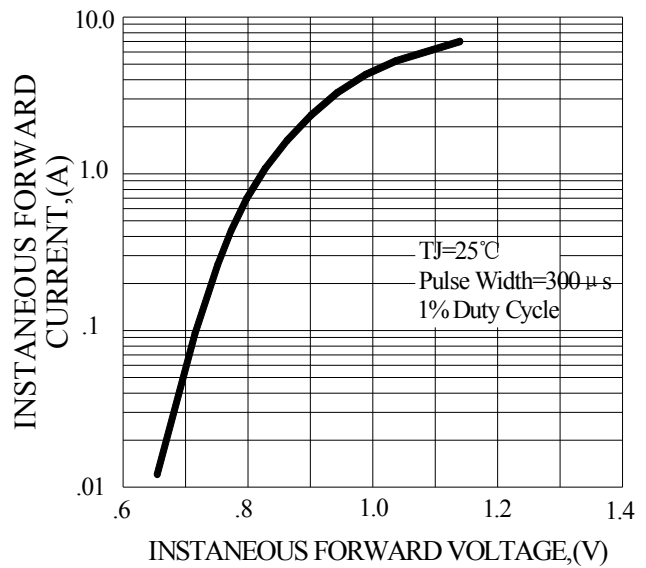


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

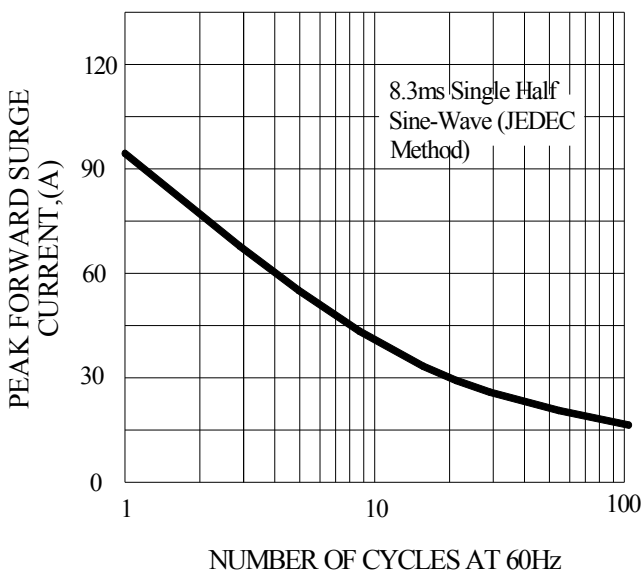
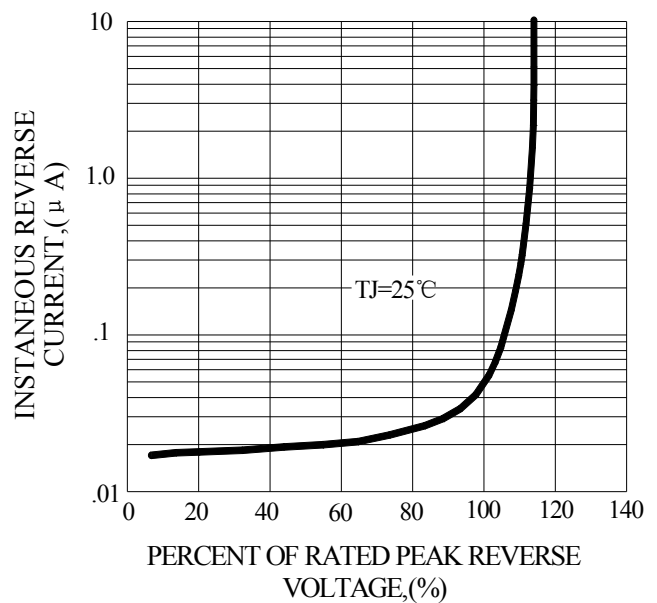
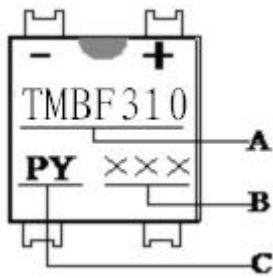


FIG.4-TYPICAL REVERSE CHARACTERISTICS



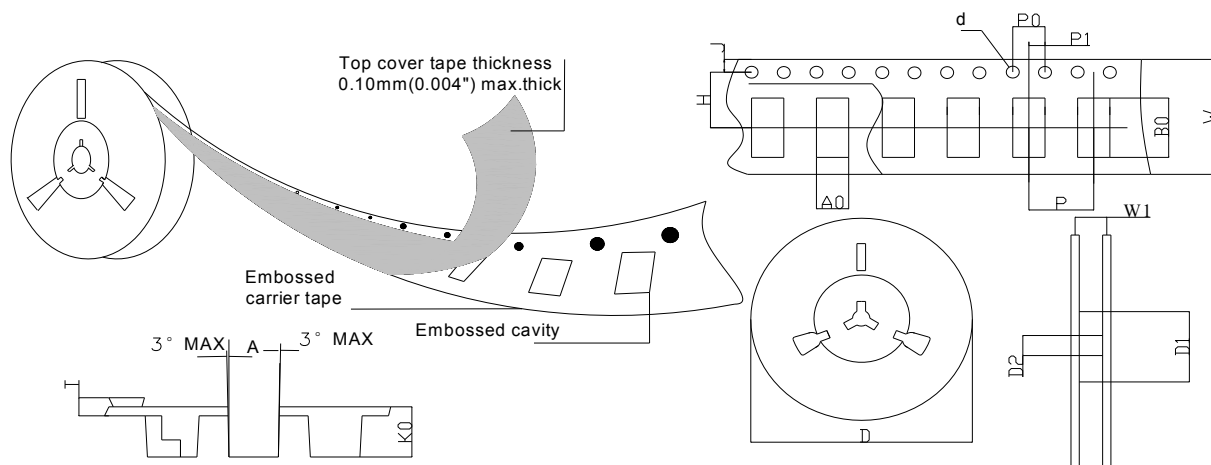
Marking and packaging illustration

1、Marking



SYMBOL	Explanation
A	Product Name
B	Date Code
C	Trademark

2、Packaging



SPECIFICATIONS mm(inch)		PACKAGE
SYMBOL		TMBF
ITEM		
Carrier width	A0	7.0(0.276)Max
Carrier length	B0	9.1(0.358)Max
Sprocket hole	d	ø1.55(0.061)Typ
Reel outer diameter	D	330.0(13.0)Typ
Reel inner diameter	D1	50.0(1.969)Min
Feed hole diameter	D2	13.0(0.512)Typ
Sprocket hole position	J	1.75(0.069)Typ
Punch hole position	H	7.50(0.295)Typ
Carrier depth	K0	1.70(0.067)Typ
Punch hole pitch	P	12.00(0.472)Typ
Sprocket hole pitch	P0	4.00(0.157)Typ
Embossment center	P1	2.00(0.079)Typ
Overall tape thickness	T	0.33(0.013)Typ
Tape width	W	16.0(0.630)Typ
Reel width	W1	12.4(0.488)Min