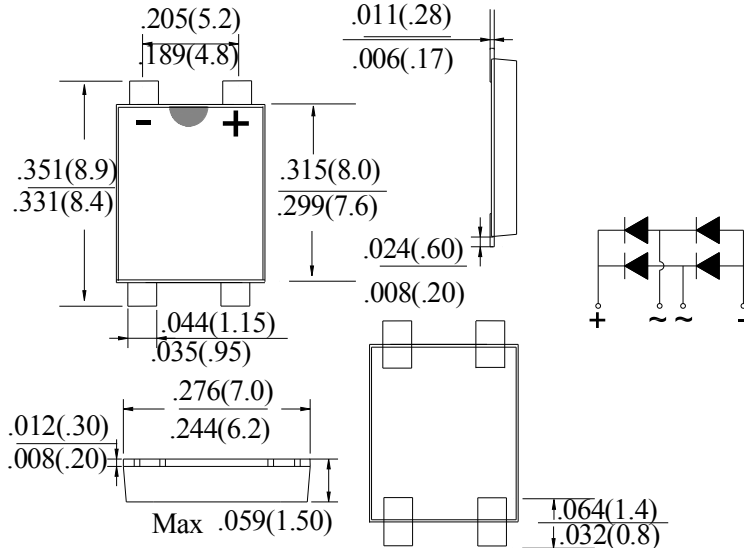




TMBF310

SINGLE PHASE 3.0 AMPS. GLASS PASSIVATED BRIDGE RECTIFIERS

TMBF



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 (Halogen free)
- . 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	SYM BOL	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
Maximum Instantaneous Forward Voltage at 3.0A DC	V_F	1.1	V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 125^\circ\text{C}$	I_R	5.0 100.0	μA
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	37.45	A^2Sec
Typical Junction Capacitance Per Leg (Note1)	C_J	50	pF
Typical Thermal Resistance (Note2)	R_{JA}	85	$^\circ\text{C}/\text{W}$
	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. 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

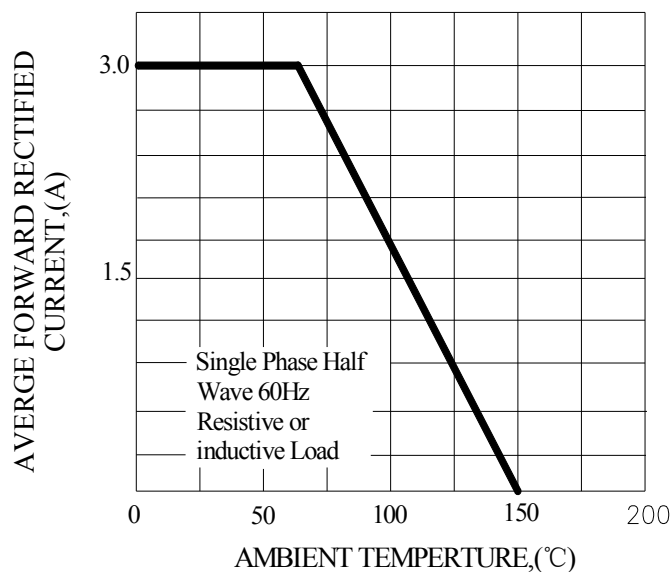


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

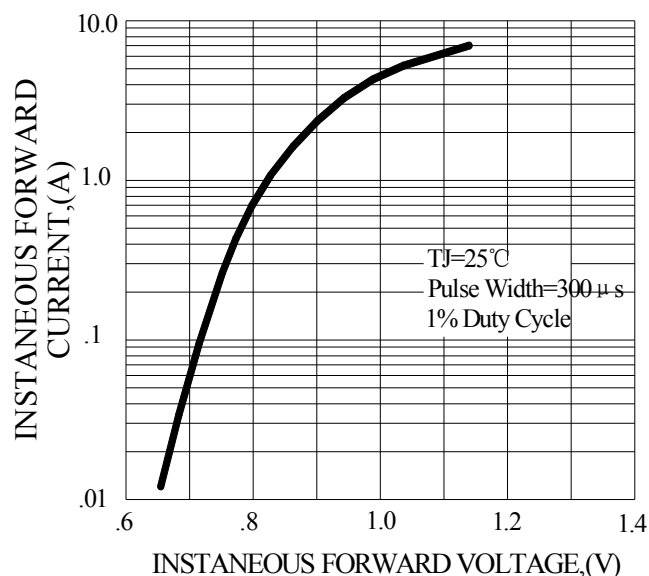


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

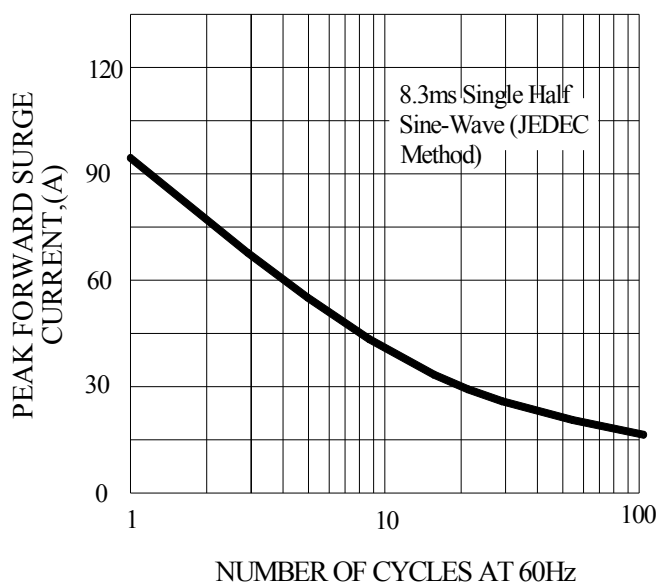
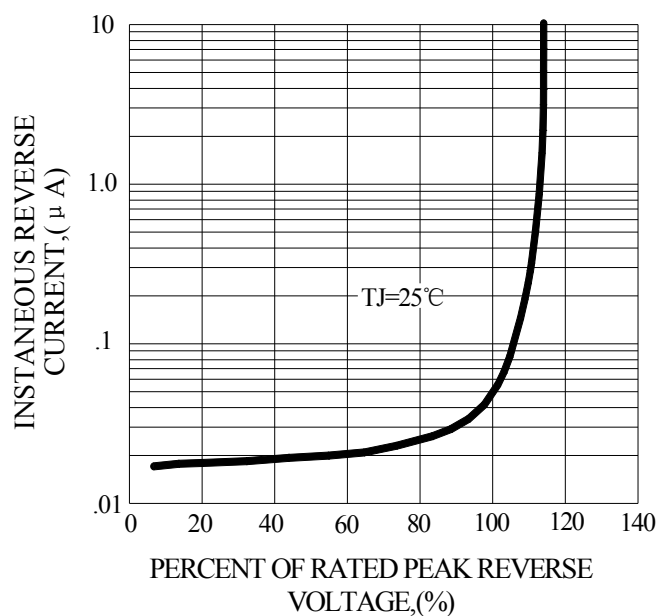


FIG.4-TYPICAL REVERSE CHARACTERISTICS



The curve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!



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