# TBF02 THRU TBF10

PINGWEI ENTERPRISE

**SINGLE PHASE1.0AMPS. GLASS PASSIVATED BRIDGE RECTIFIERS**

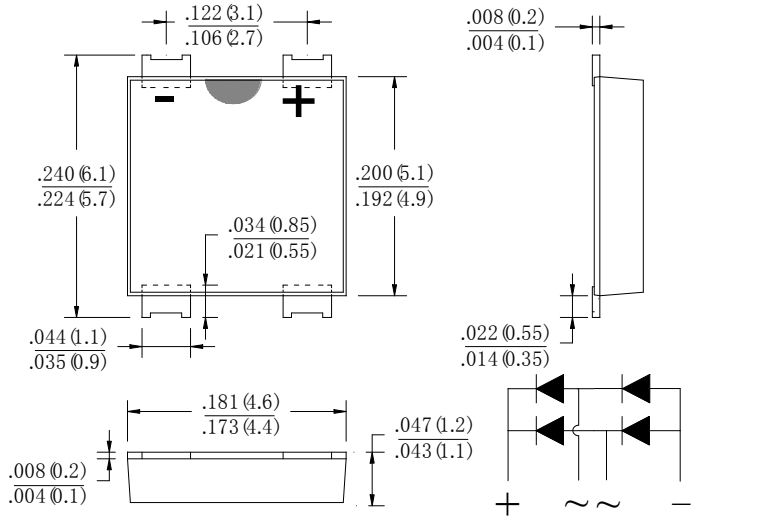
## FEATURE

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

## MECHANICAL DATA

- Case Material: "Green" Molding compound, UL flammability classification rating 94V-0, "Free halogen"
- Moisture sensitivity level:level 2a,per J-STD-020
- Polarity:Polarity as marked on the body
- Weight: 0.092g (approximately)

**TBF**




Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ 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 | TBF02 | TBF04 | TBF06 | TBF08 | TBF10 | units |
|---|---|---|---|---|---|---|---|
| Maximum Recurrent 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 @ $T_A$=40℃ | $I_{F(AV)}$ | 1.0 | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | $I_{FSM}$ | 30 | | | | | A |
| Maximum Instantaneous @$I_F$=0.5A DC<br>Forward Voltage @$I_F$=1.0A DC | $V_F$ | 0.98<br>1.05 | | | | | V |
| Maximum DC Reverse Current @$T_J$ =25°C<br>at rated DC blocking voltage @$T_J$ =125°C | $I_R$ | 5.0<br>500.0 | | | | | μA |
| $I^2t$ Rating for Fusing (t < 8.3ms) | $I^2t$ | 3.7 | | | | | $A^2Sec$ |
| Typical Junction Capacitance Per Leg (Note1) | $C_J$ | 13 | | | | | pF |
| Typical Thermal Resistance (Note2) | $R_{JA}$ | 70 | | | | | °C /W |
| | $R_{JC}$ | 10 | | | | | |
| 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 case,lead and ambient in accordance with JESD-51.
   Unit mounted on glass-epoxy substrate with 1oz/ft2-10×10mmcopper pad per pin with heat sink.

## RATING AND CHARACTERISTIC CURVES ( TBF02 THRU TBF10 )

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

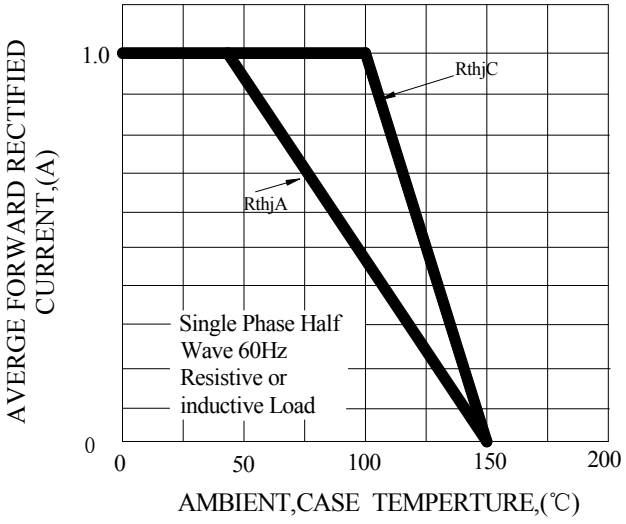



FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

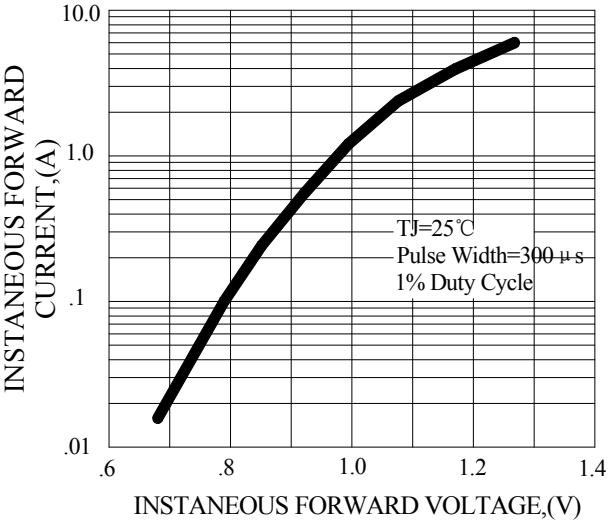



FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

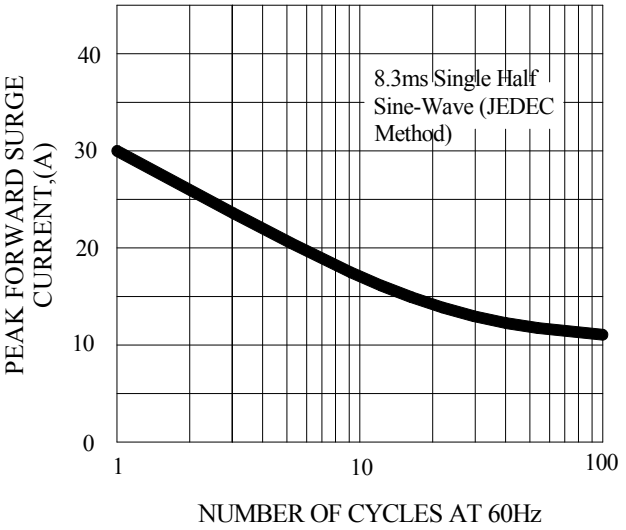



FIG.4-TYPICAL REVERSE CHARACTERISTICS

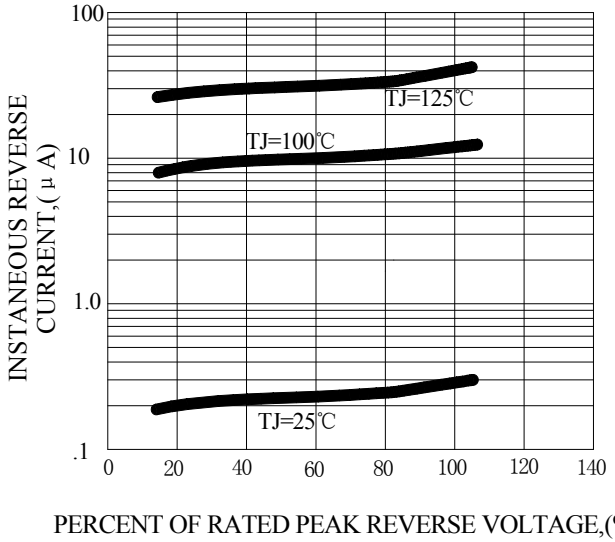



FIG.5-TYPIAL JUNCTION CAPAOTANCE

