**5A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER Reverse Voltage - 100 to 1000 V**

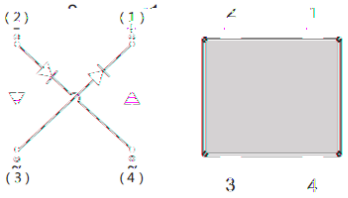
**Forward Current – 5.0A**

## FEATURES

- High current capability
- Low forward voltage drop
- Glass Passivated Chip Junction
- Designed for Surface Mount Application
- Lead free in comply with EU RoHS 2011/65/EU directives

## MECHANICAL DATA

- Case: TTF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.461g /0.0163oz




1.Output Anode(+)
2.Output Cathode(-)
3.Input pin(~)
4.Input pin(~)

**TTF**

| Marking Code | |
|---|---|
| TT501F | TT501F |
| TT502F | TT502F |
| TT504F | TT504F |
| TT506F | TT506F |
| TT508F | TT508F |
| TT510F | TT510F |

### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter | Symbols | TT501F | TT502F | TT504F | TT506F | TT508F | TT510F | Units |
|---|---|---|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | $V_{RMS}$ | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Average Rectified Output Current | $I_o$ | 5.0 | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load(JEDEC method) | $I_{FSM}$ | 180 | | | | | | A |
| I2t Rating for Fusing | $I^2t$ | 134 | | | | | | $A^2S$ |
| Forward Voltage per element at 1.0A | $V_F$ | 0.83(TYP) | | | | | | V |
| Forward Voltage per element at 5.0A | $V_F$ | 1.0 | | | | | | V |
| Maximum DC Reverse Current @$T_A$=25°C<br>at Rated DC Blocking Voltage @$T_A$=125°C | $I_R$ | 5<br>100 | | | | | | μA |
| Typical Junction Capacitance Note1 | $C_j$ | 60 | | | | | | pF |
| Typical Thermal Resistance Note2 | $R_{\theta JA}$<br>$R_{\theta JC}$<br>$R_{\theta JL}$ | 60<br>10<br>12 | | | | | | °C/W |
| Operating and Storage Temperature Range | $T_j$, $T_{stg}$ | -55 ~ +150 | | | | | | °C |

1 **Measured at 1 MHz and applied reverse voltage of 4 V D.C**

2 **Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.**

**Fig.1 Average Rectified Output Current Derating Curve**

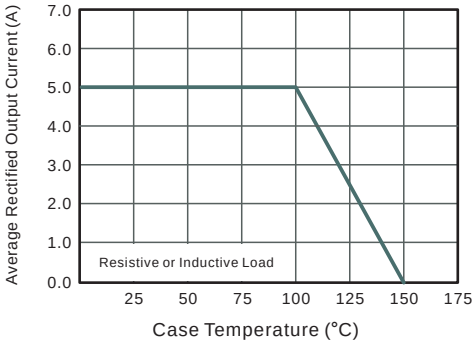



**Fig.2 Typical Reverse Characteristics**

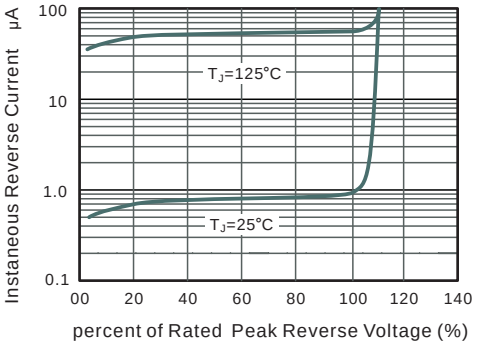



**Fig.3 Typical Instaneous Forward Characteristics**

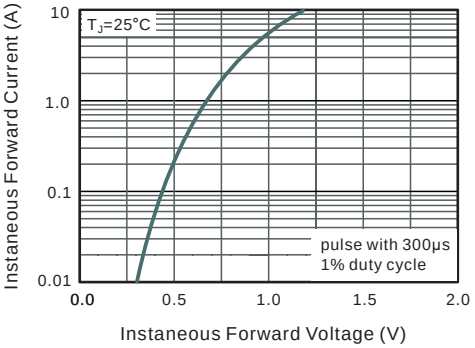



**Fig.4 Typical Junction Capacitance**

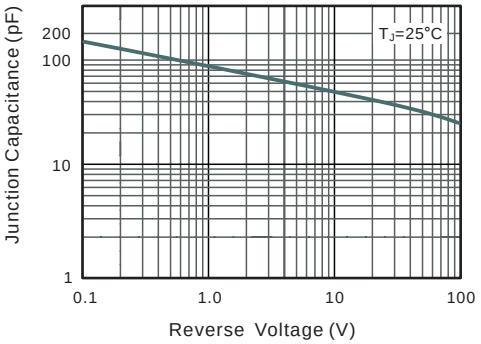



**Fig.5 Maximum Non-Repetitive Peak Forward Surage Current**

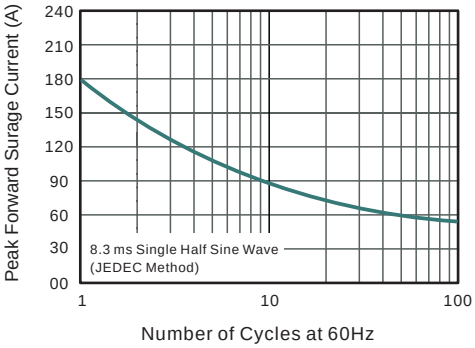
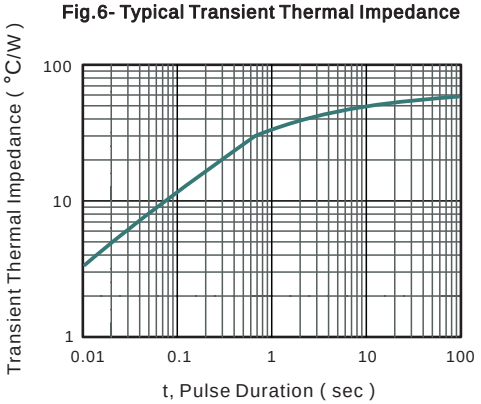



**Fig.6- Typical Transient Thermal Impedance**



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