

SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage - 1000 V

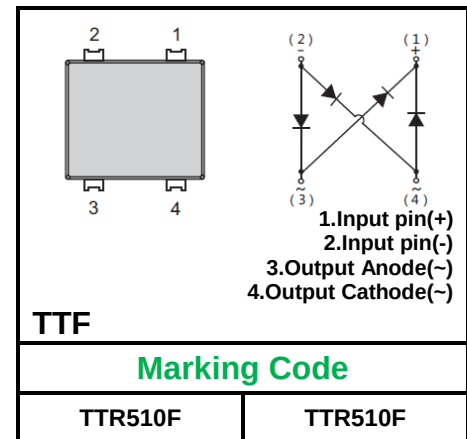
Forward Current - 5.0A

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



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	TTR510F	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Average Rectified Output Current at $T_c=100^{\circ}C$	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
I^2t Rating for Fusing	I^2t	134.46	A ² S
Typical Thermal Resistance (Note1)	$R_{\theta JA}$	60	$^{\circ}C/W$
	$R_{\theta JC}$	10	
	$R_{\theta JL}$	12	
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^{\circ}C$

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

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	Test Conditions	Typ	Max	Units
Instantaneous forward voltage	V_F	$I_F=5A, T_J=25^{\circ}C$	-	1.0	V
Reverse current at DC blocking voltage	I_R	$T_J=25^{\circ}C$ $T_J=125^{\circ}C$	-	1 200	μA
Maximum Reverse Recovery Time	T_{rr}	Measured with $I_F=0.5A, I_R=1A,$ $I_{rr}=0.25 A$	-	500	nS
Typical Junction Capacitance	C_j	$f=1MHz, V_R=4V$ DC $T_J=25^{\circ}C$	60	-	pF

Fig.1 Average Rectified Output Current Derating Curve

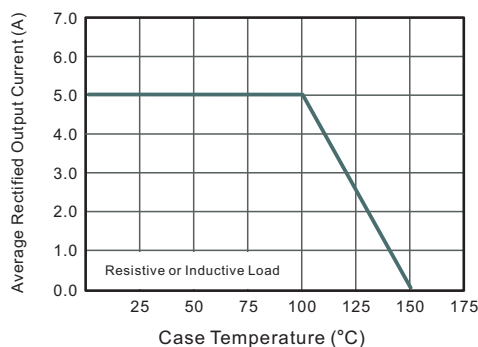


Fig.2 Typical Reverse Characteristics

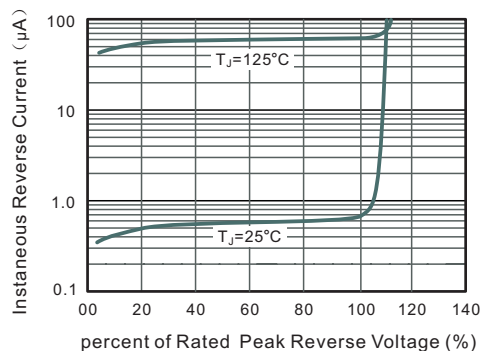


Fig.3 Typical Instantaneous Forward Characteristics

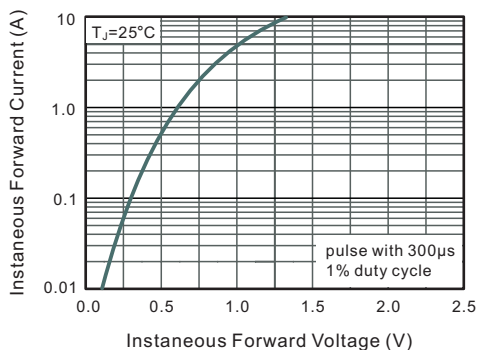


Fig.4 Typical Junction Capacitance

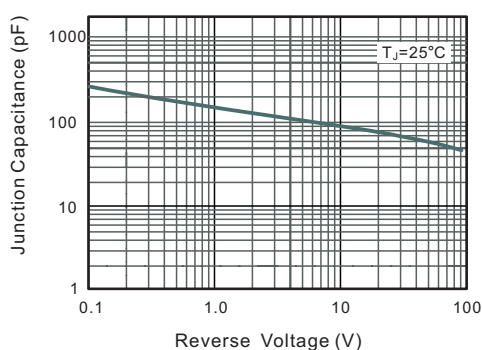


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

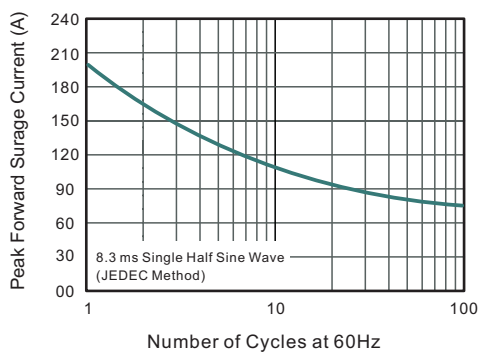
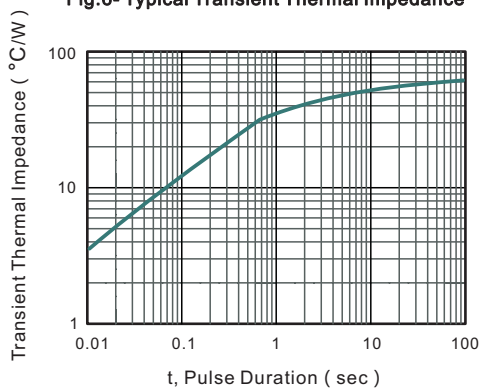
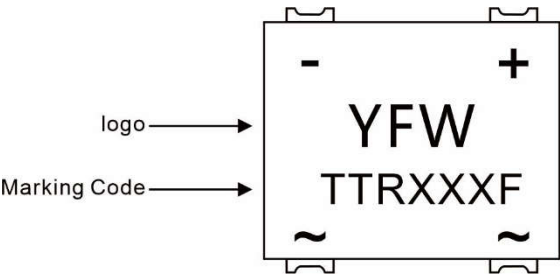


Fig.6- Typical Transient Thermal Impedance



Marking Diagram



Ordering information

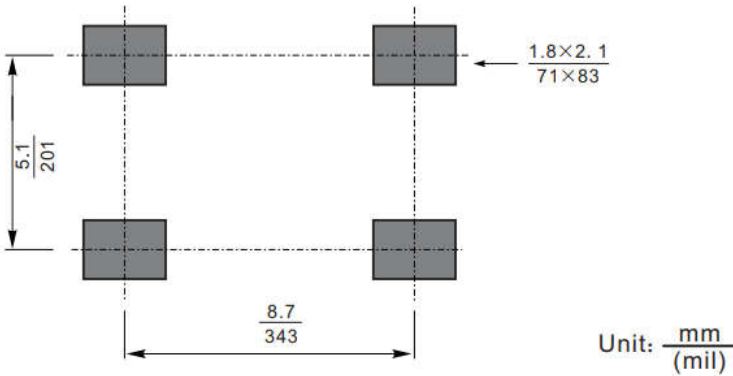
Package	Packing Description	Packing Quantity
TTF	Tape/Reel, 13" reel	3000PCS/Reel 30000PCS/Carton

Package Dimensions

TTF

Dim.	Millimeter(mm)		(mil)	
	Min.	Max.	Min.	Max.
A	1.35	1.75	53	68
C	0.25	0.55	9.8	21.6
D	9.4	9.8	370	385
E	8.4	8.8	330	346
E ₁	9.8	10.2	385	401
L	0.85	1.25	33	49
e	4.9	5.3	193	209
b	1.25	1.55	49	61
∠	10°			

The recommended mounting pad size



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