

8.0A Super Fast Recovery Rectifier Bridge

Reverse Voltage - 300 to 600 V
Forward Current – 8.0A

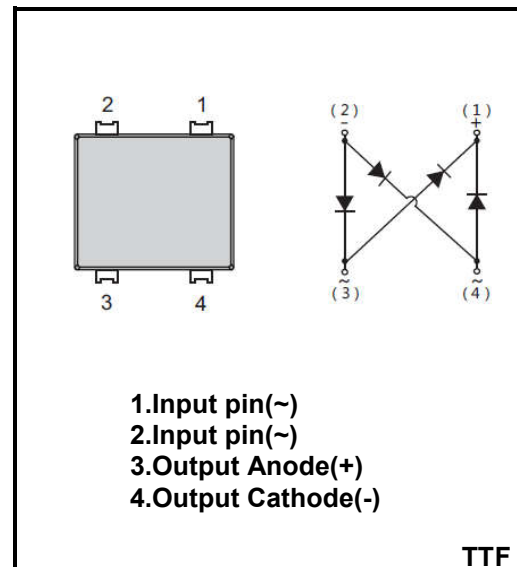
FEATURES

- ◆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	TTF803E	TTF806E	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	300	600	V
Maximum RMS voltage		V_{RMS}	200	420	V
Maximum DC Blocking Voltage		V_{DC}	300	600	V
Average Rectified Output Current		$I_{(AV)}$	8.0		A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	220		A
Peak Forward Surge Current 1.0 ms Single Half Sine-Wave Superimposed on Rated Load		I_{FSM}	350		A
Forward Voltage per element @ I_F =8A DC		V_F	1.20	1.50	V
Maximum Reverse Recovery Time		T_{rr}	35		nS
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T_a =25°C	I_R	5		μA
	@ T_a =125°C		500		
I2t Rating for Fusing(3ms≤t≤8.3ms)		I^2t	200		A ² S
Typical Junction Capacitance		C_j	100		pF
Typical Thermal Resistance		$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	60 10 12		°C/W
Operating and Storage Temperature Range		T_j, T_{stg}	-55 ~ +175		°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.

Ratings and Characteristic Curves

Fig.1 Average Rectified Output Current Derating Curve

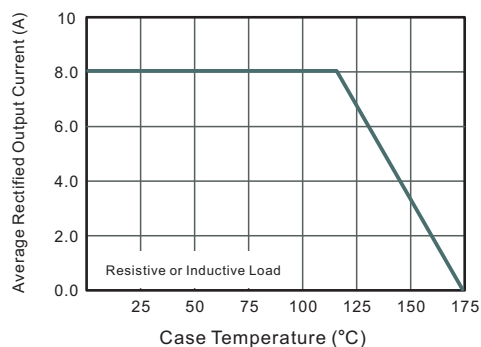


Fig.2 Typical Reverse Characteristics

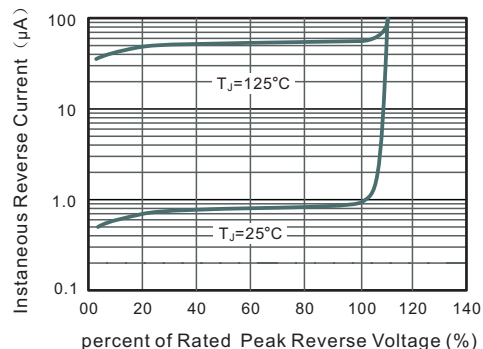


Fig.3 Typical Instantaneous Forward Characteristics

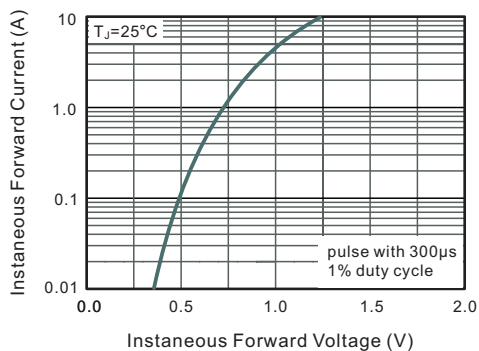


Fig.4 Typical Junction Capacitance

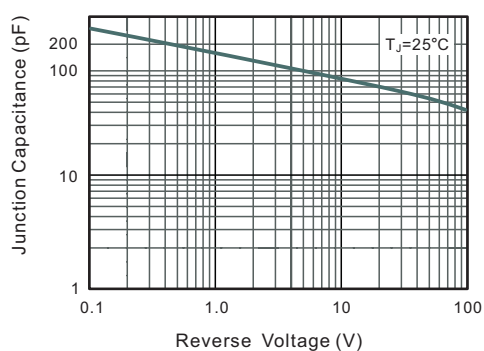


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

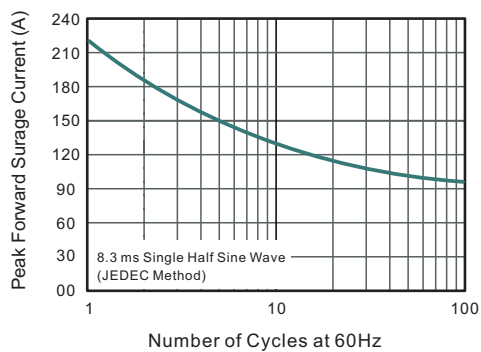
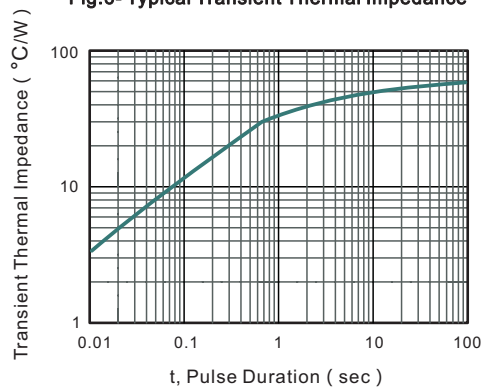
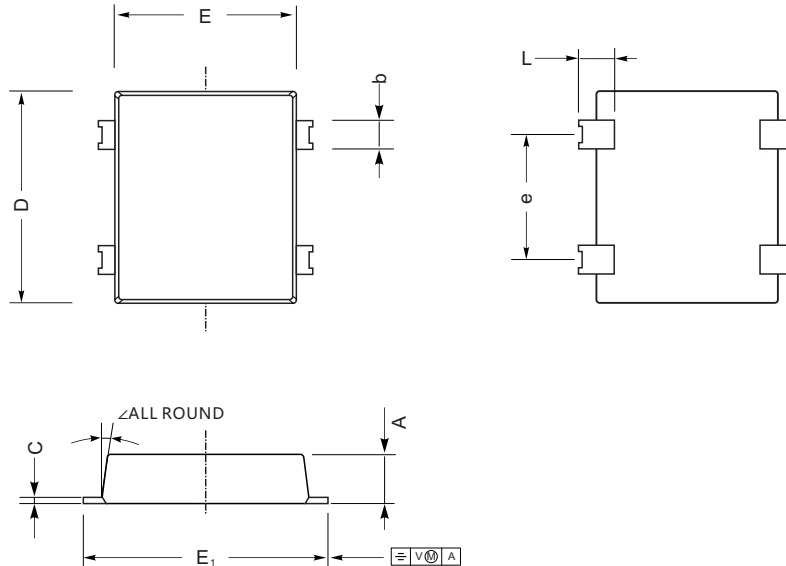


Fig.6- Typical Transient Thermal Impedance

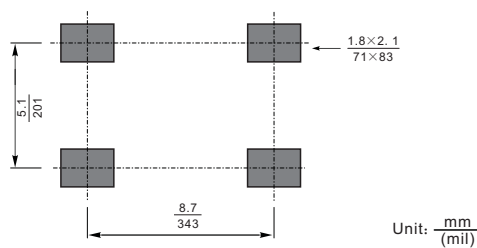


Plastic surface mounted package; 4 leads



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

The recommended mounting pad size



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
TTF	Tape/Reel, 13" reel	3000	EIA-481-1