



# TMBF401 THRU TMBF410

## SURFACE MOUNT BRIDGE RECTIFIERS

### FEATURES:

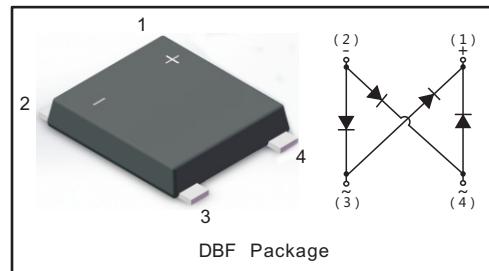
- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 4.0 A
- High Surge Current Capability
- Designed for Surface Mount Application

### MECHANICAL DATA

- Case : DBF (UMSB)
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.234g / 0.00825oz

### PINNING

PIN	DESCRIPTION
1	Output Anode ( + )
2	Output Cathode ( - )
3	Input Pin ( ~ )
4	Input Pin ( ~ )



### 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	TMBF401	TMBF402	TMBF404	TMBF406	TMBF 408	TMBF410	Units
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	100	200	400	600	800	1000	V
Average Rectified Output Current	I <sub>O</sub>				4.0			A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>				150			A
Maximum Forward Voltage at 4.0 A	V <sub>F</sub>				1.1			V
Maximum DC Reverse Current @T <sub>A</sub> =25 °C at Rated DC Blocking Voltage @T <sub>A</sub> =125 °C	I <sub>R</sub>				5 100			µA
Typical Junction Capacitance ( Note1 )	C <sub>J</sub>				50			pF
Typical Thermal Resistance ( Note2 )	R <sub>θJA</sub> R <sub>θJC</sub> R <sub>θJL</sub>				60 10 25			°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>stg</sub>				-55 ~ +150			°C

Note: 1. Measured at 1MHz 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.



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### Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Average Rectified Output Current Derating Curve

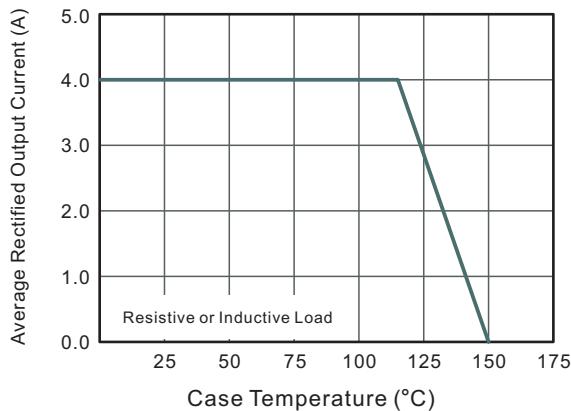


Fig.2 Typical Reverse Characteristics

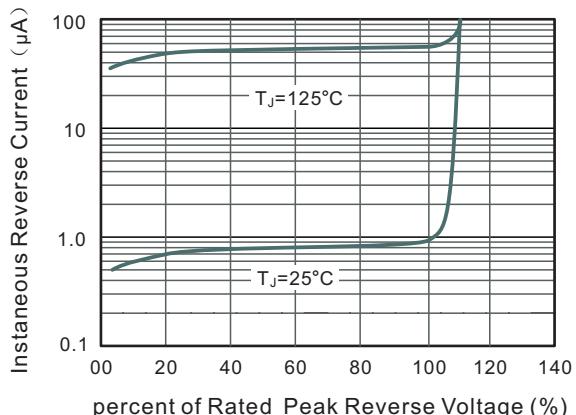


Fig.3 Typical Instantaneous Forward Characteristics

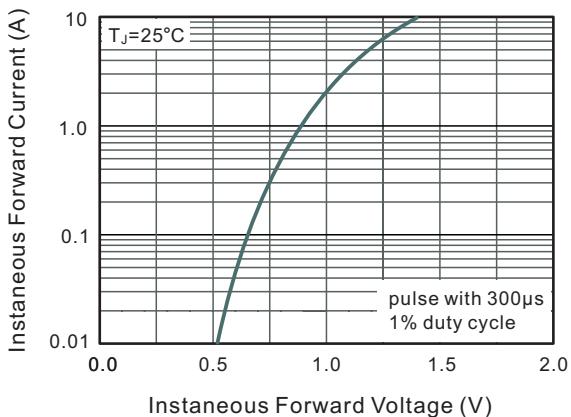


Fig.4 Typical Junction Capacitance

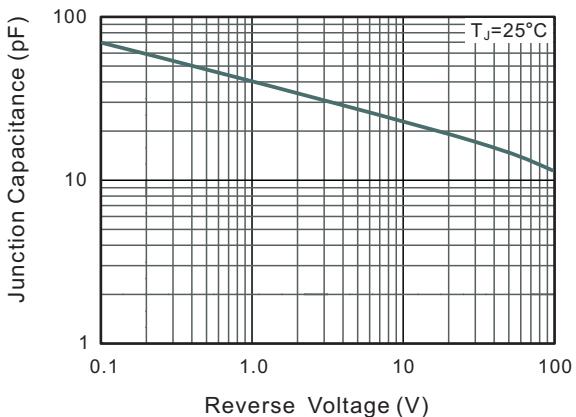


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

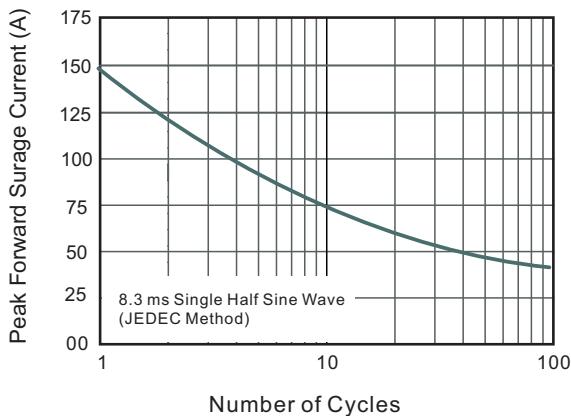
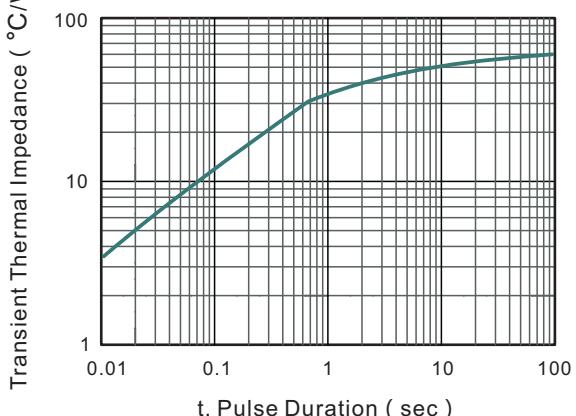


Fig.6- Typical Transient Thermal Impedance





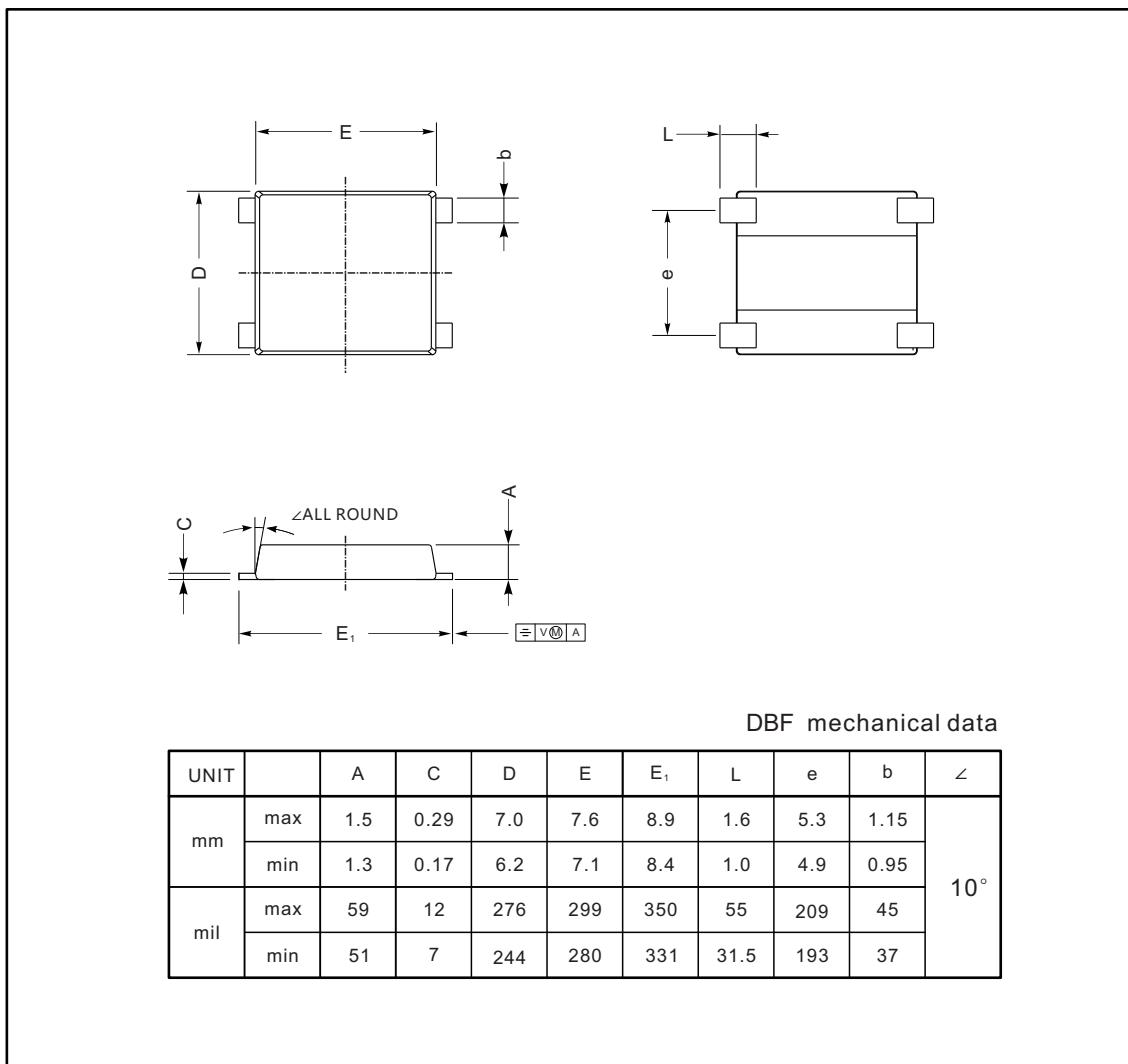
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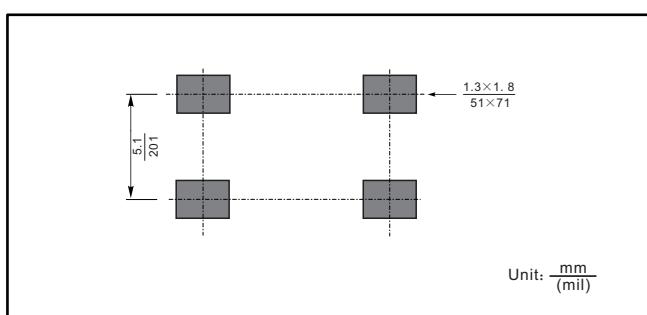
### PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

DBF



The recommended mounting pad size



Marking

Type number	Marking code
TMBF401	TMBF401
TMBF402	TMBF402
TMBF404	TMBF404
TMBF406	TMBF406
TMBF408	TMBF408
TMBF410	TMBF410

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