



TMBF301 THRU TMBF310

SURFACE MOUNT BRIDGE RECTIFIERS

FEATURES:

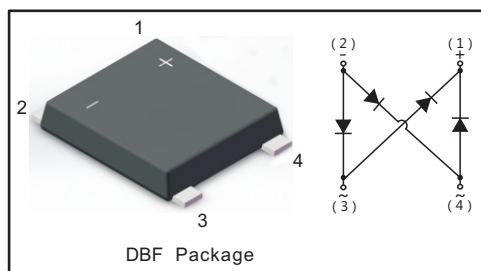
- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 3.0 A
- High Surge Current Capability
- Designed for Surface Mount Application

MECHANICAL DATA

- Case: DBF
- 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	TMBF301	TMBF302	TMBF304	TMBF306	TMBF308	TMBF310	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	3.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	120						A
Maximum Forward Voltage at 3.0 A	V_F	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A=25\text{ }^\circ\text{C}$ @ $T_A=125\text{ }^\circ\text{C}$	I_R	5 100						μA
Typical Junction Capacitance (Note1)	C_j	40						pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	60 10 25						$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						$^\circ\text{C}$

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

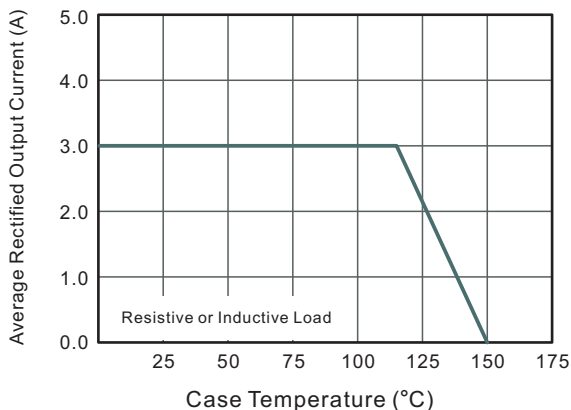


Fig.2 Typical Reverse Characteristics

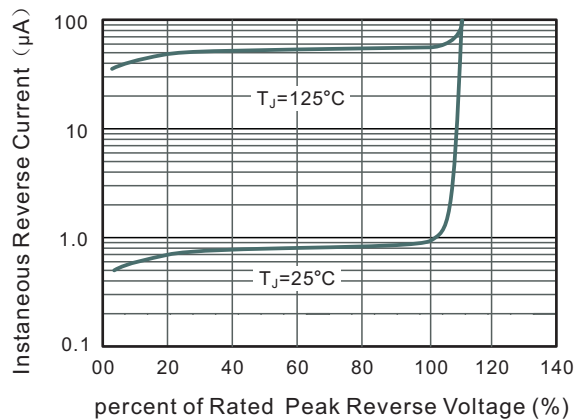


Fig.3 Typical Instantaneous Forward Characteristics

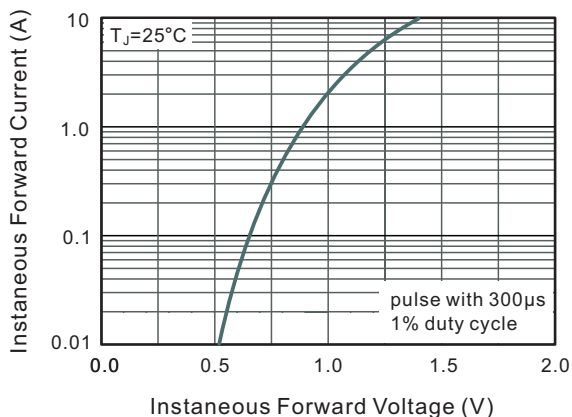


Fig.4 Typical Junction Capacitance

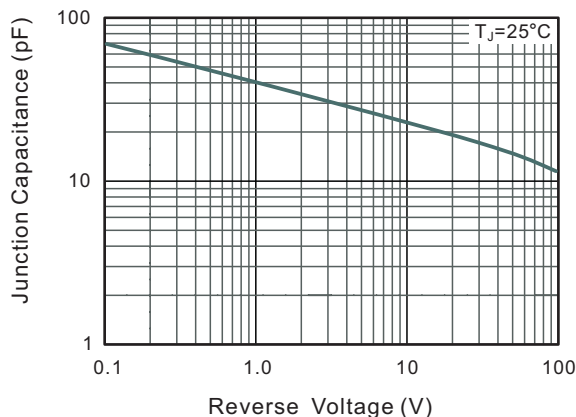


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

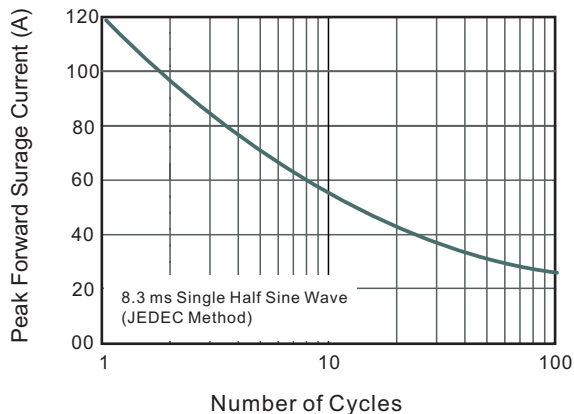
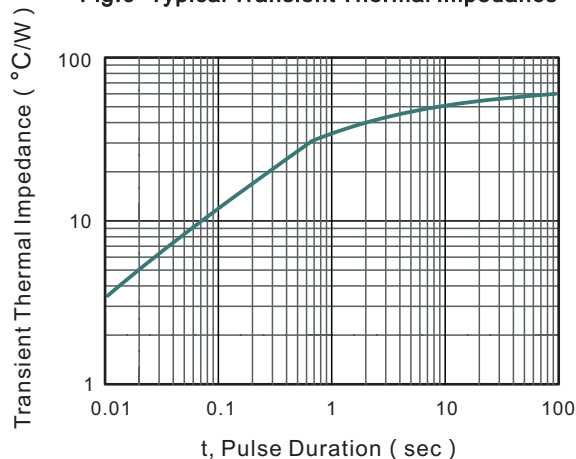


Fig.6- Typical Transient Thermal Impedance





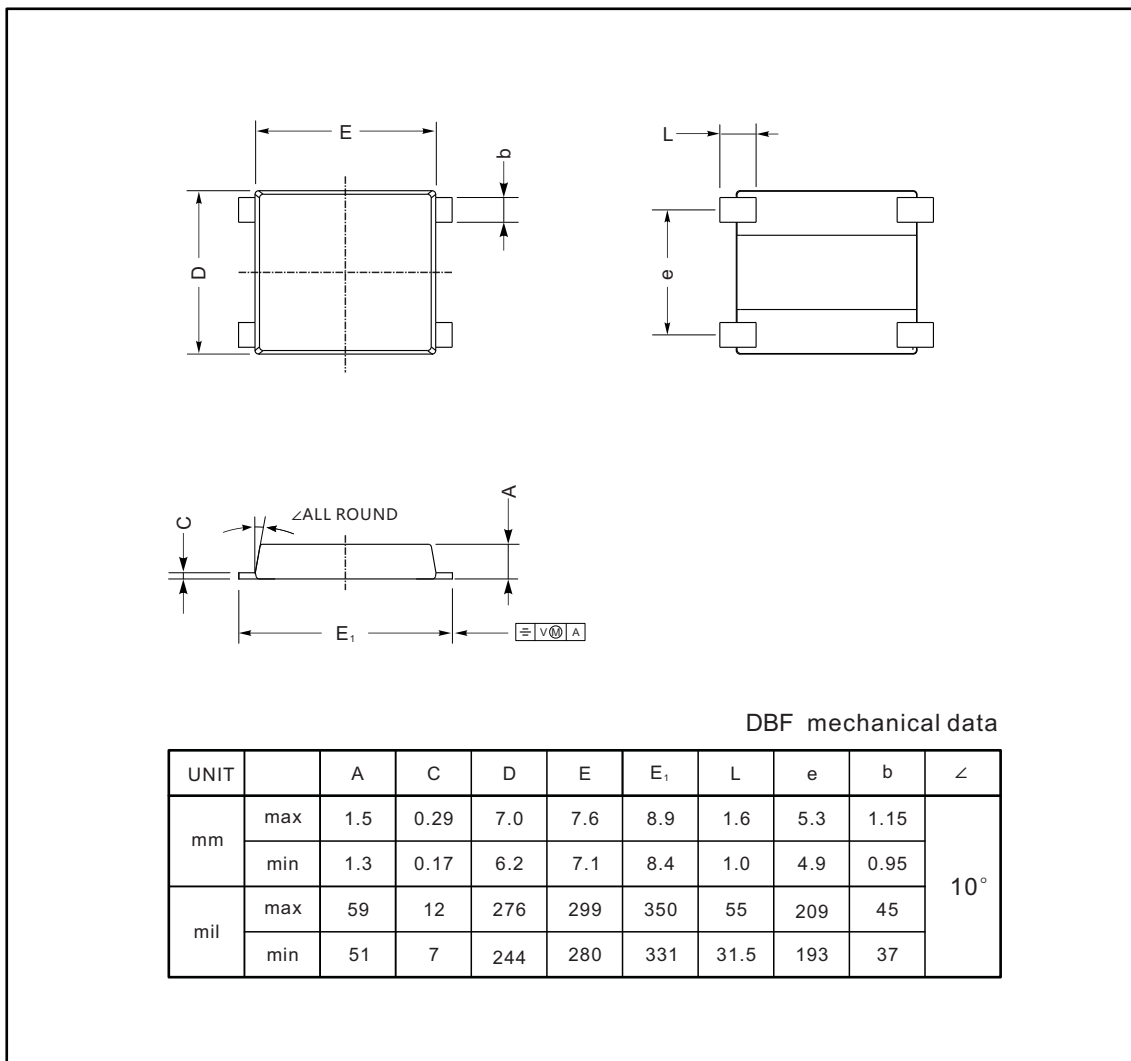
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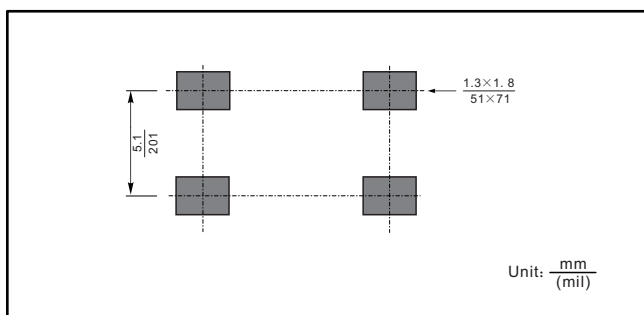
PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

DBF



The recommended mounting pad size



Marking

Type number	Marking code
TMBF301	TMBF301
TMBF302	TMBF302
TMBF304	TMBF304
TMBF306	TMBF306
TMBF308	TMBF308
TMBF310	TMBF310

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