

TD5MF510

Surface Mount Fast Recovery Bridge Rectifier Reverse Voltage - 1000 V Forward Current - 5 A

Features

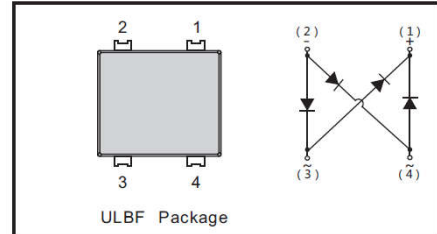
- Glass passivated chip junction
- Fast reverse recovery time
- Designed for Surface Mount Application

Mechanical Data

- Case: ULBF
- Terminals: solderable per MIL-STD-750, Method 2026

PINNING

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



Absolute Maximum Ratings and Characteristics

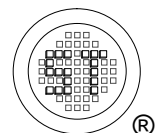
Ratings at 25°C ambient temperature unless otherwise specified

Parameter	Symbols	Value	Units
	Marking	ULBR510	-
Maximum Recurrent 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 $T_C = 100^\circ\text{C}$	$I_{F(AV)}$	5	A
Peak Forward Surge Current 8.3 ms Single Half-sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	180	A
Maximum Forward Voltage at 5 A	V_F	1	V
Maximum Reverse Current at DC Blocking Voltage $T_j = 25^\circ\text{C}$ $T_j = 125^\circ\text{C}$	I_R	1 200	μA
Typical Junction Capacitance ¹⁾	C_J	60	pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$ $R_{\theta JC}$	60 6	$^\circ\text{C/W}$
Maximum Reverse Recovery Time ³⁾	t_{rr}	500	ns
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150	$^\circ\text{C}$

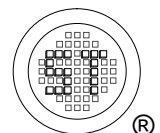
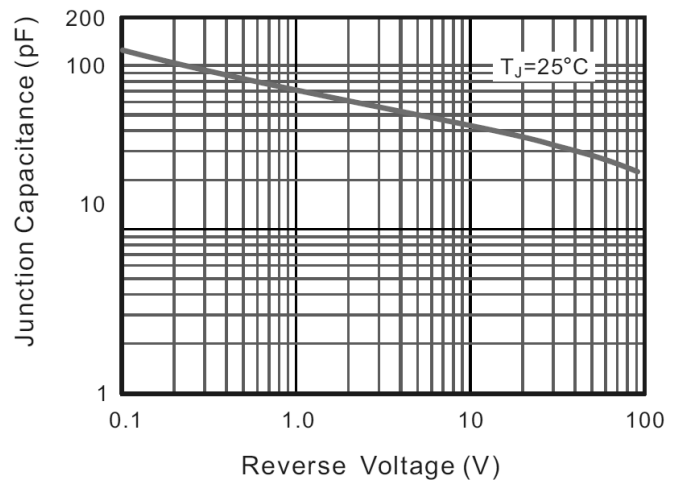
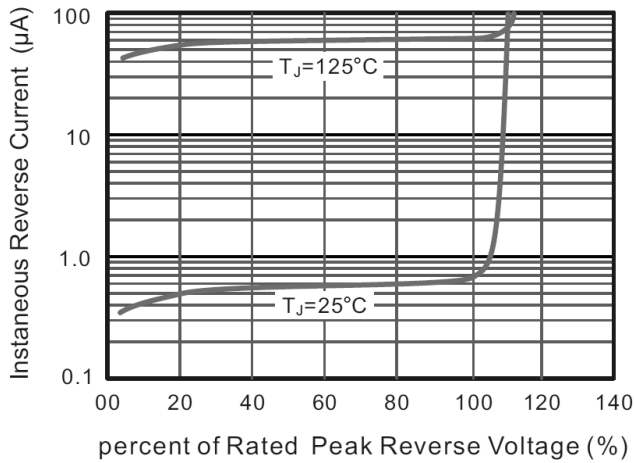
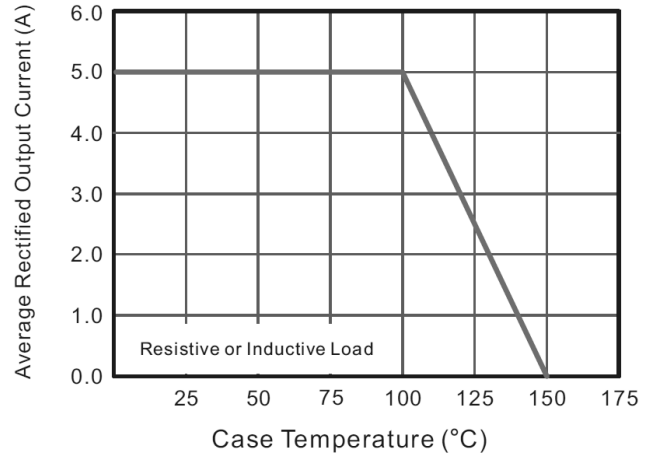
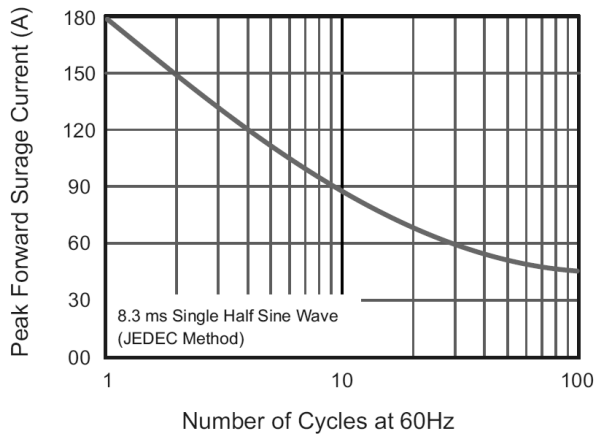
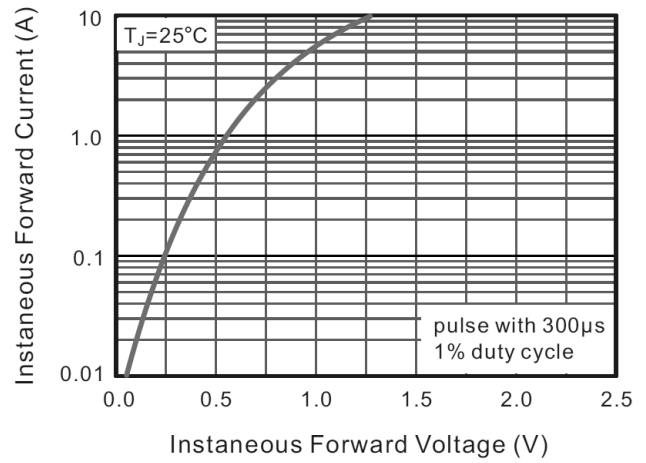
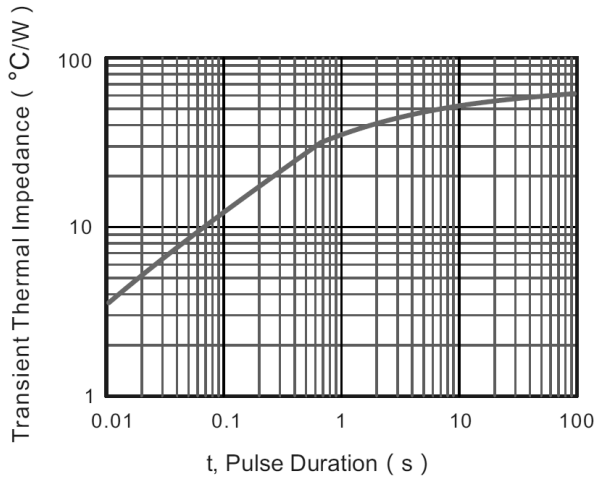
¹⁾ Measured at 1MHz and applied reverse voltage of 4 V D.C.

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

³⁾ Measured with $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $I_{rr} = 0.25 \text{ A}$.



TD5MF510

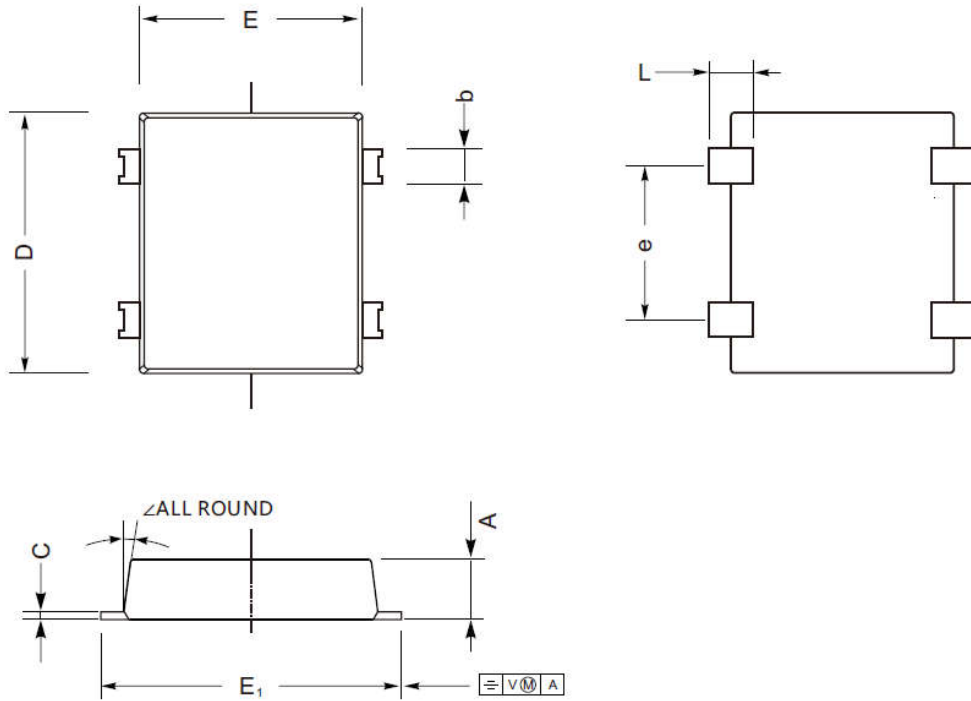


TD5MF510

PACKAGE OUTLINE

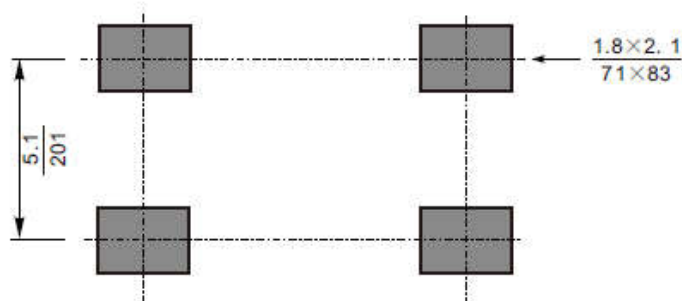
ULBF

Plastic surface mounted package; 4 leads



UNIT	A	C	D	E	E ₁	L	e	b	∠
mm	1.75	0.55	9.8	8.8	10.2	1.25	5.3	1.55	10°
	1.35	0.25	9.4	8.4	9.8	0.85	4.9	1.25	

Recommended Soldering Footprint



Unit: $\frac{\text{mm}}{(\text{mil})}$

