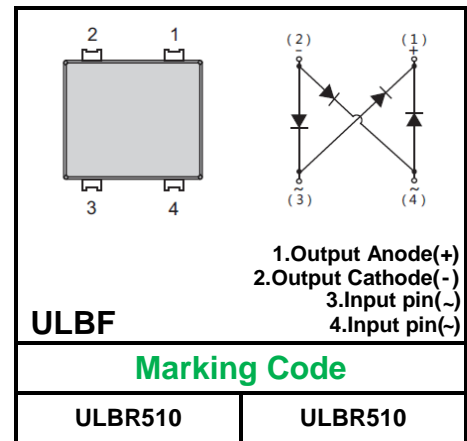


**5A SURFACE MOUNT GLASS PASSIVATED BRIDGE**
**RECTIFIER Reverse Voltage - 100 to 1000 V**
**Forward Current – 5.0A**
**FEATURES**

- ◆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: ULBF
- ◆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	ULBR510	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 <sup>2</sup> t Rating for Fusing	$I^2t$	134.46	A <sup>2</sup> S
Typical Thermal Resistance (Note1)	$R_{\theta JA}$	60	°C/W
	$R_{\theta JC}$	10	
	$R_{\theta JL}$	12	
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150	°C

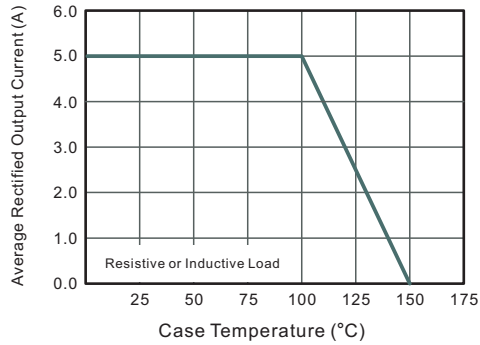
(1) Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

**Maximum Ratings and Electrical characteristics**

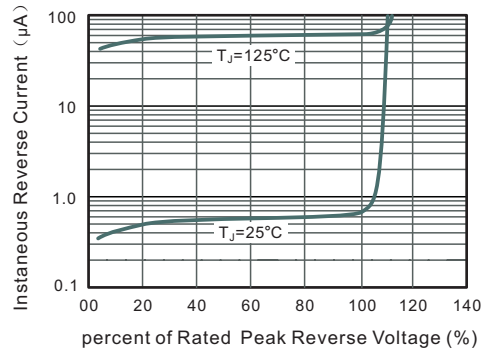
Ratings at 25 °C ambient temperature unless otherwise specified.

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	uA
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

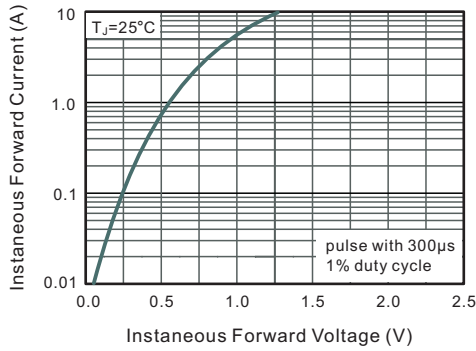
**Fig.1 Average Rectified Output Current Derating Curve**



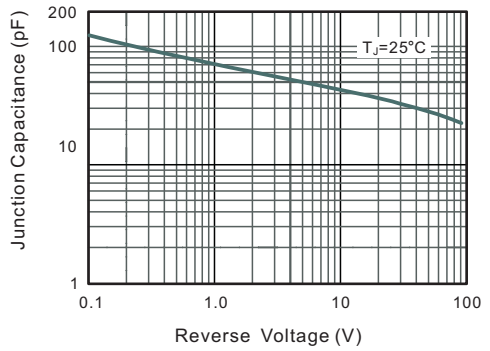
**Fig.2 Typical Reverse Characteristics**



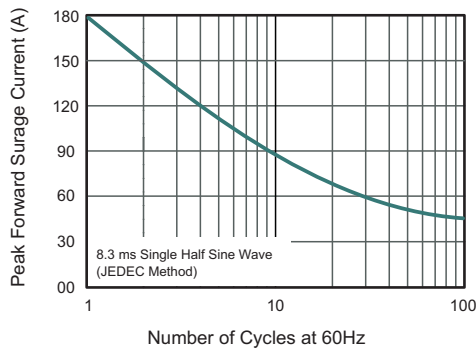
**Fig.3 Typical Instantaneous Forward Characteristics**



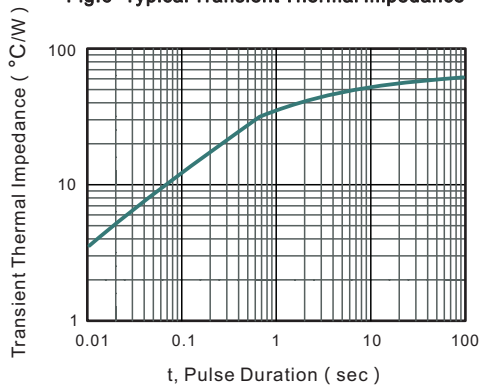
**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**

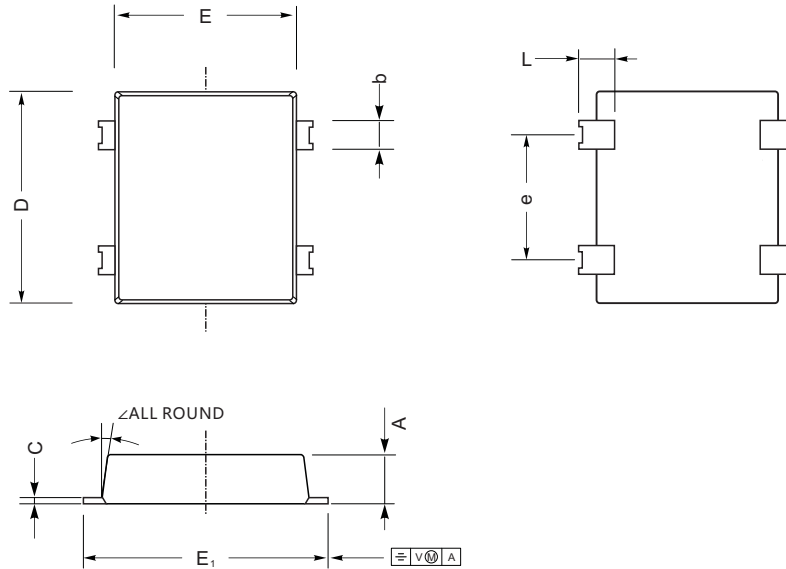


**Fig.6- Typical Transient Thermal Impedance**



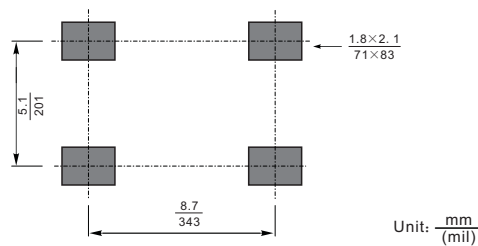
**Package Outline      ULBF**

Plastic surface mounted package; 4 leads



UNIT		A	C	D	E	E <sub>1</sub>	L	e	b	$\angle$
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
ULBF	Tape/Reel, 13" reel	3000	EIA-481-1