

5A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

FEATURES:

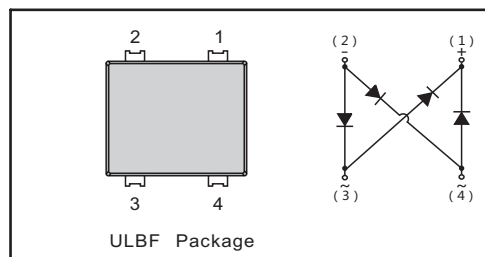
- Glass Passivated Chip Junction
- Reverse Voltage - 1000 V
- Forward Current - 5.0 A
- Fast reverse recovery time
- Designed for Surface Mount Application

MECHANICAL DATA

- Case: ULBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.461g / 0.0163oz

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

PARAMETER	SYMBOL	SLBF5M	Units
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 at $T_c = 100^\circ\text{C}$	I_o	5.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	180	A
I^2t Rating for Fusing	I^2t	134.46	A ² S
Typical Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	60	°C/W
	$R_{\theta JC}$	6	
	$R_{\theta JL}$	14	
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	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	Units
Instantaneous forward voltage	V_F	$I_F = 1\text{A}$ $T_J = 25^\circ\text{C}$	—	0.83	—	V
		$I_F = 5\text{A}$ $T_J = 25^\circ\text{C}$	—	0.95	1.0	
		$I_F = 1\text{A}$ $T_J = 125^\circ\text{C}$	—	0.70	—	
		$I_F = 5\text{A}$ $T_J = 125^\circ\text{C}$	—	0.85	—	
Reverse current at DC blocking voltage	I_R	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	— —	0.15 40	1 200	μA
Maximum Reverse Recovery Time	t_{rr}	Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.	—	—	500	ns
Typical Junction Capacitance	C_j	$f = 1\text{MHz}$, $V_R = 4\text{V DC}$ $T_J = 25^\circ\text{C}$	—	60	—	pF

Fig.1 Average Rectified Output Current Derating Curve

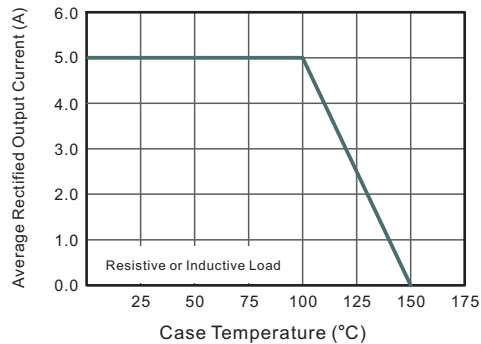


Fig.2 Typical Reverse Characteristics

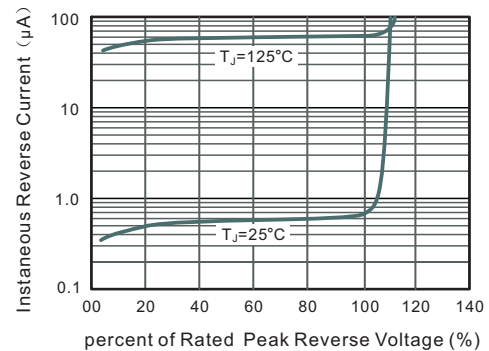


Fig.3 Typical Instantaneous Forward Characteristics

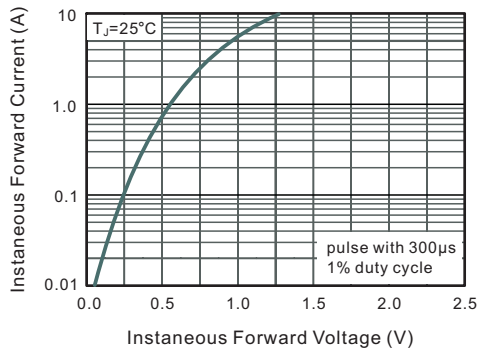


Fig.4 Typical Junction Capacitance

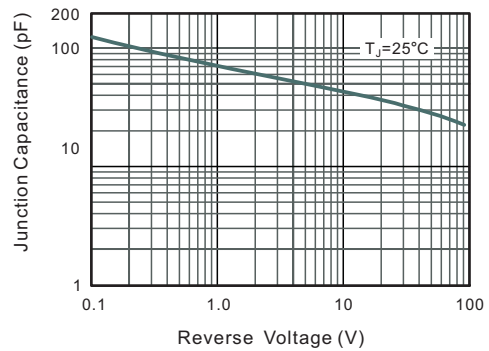


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

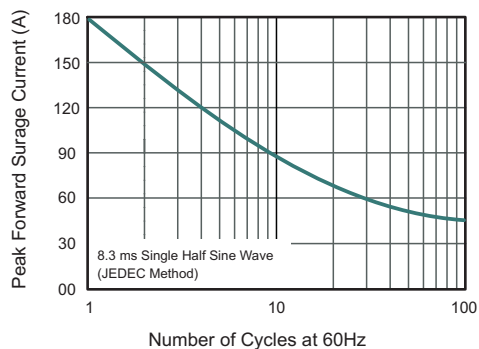
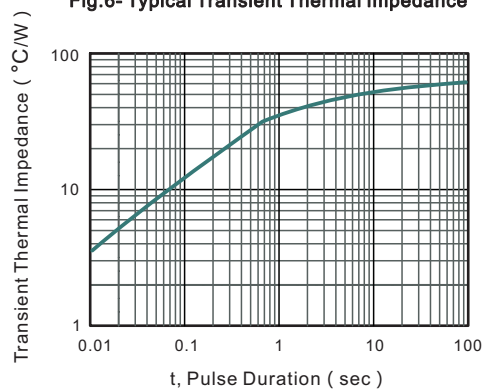


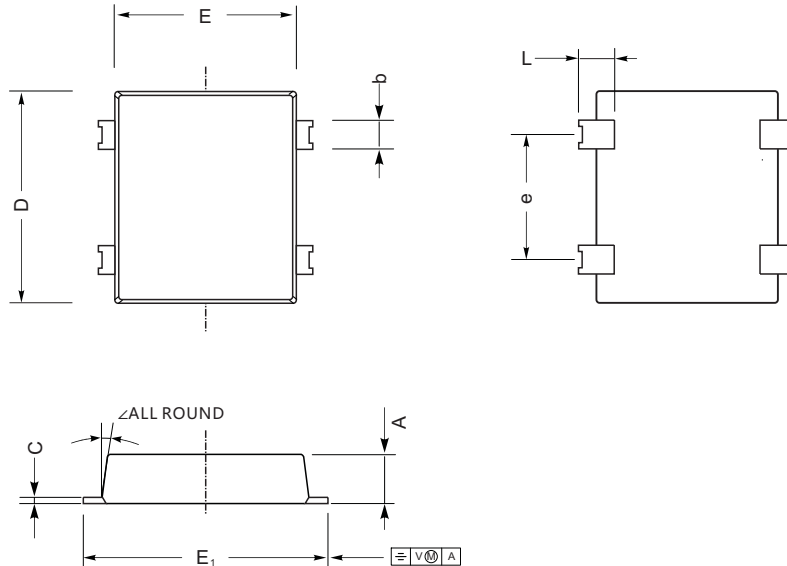
Fig.6- Typical Transient Thermal Impedance



PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

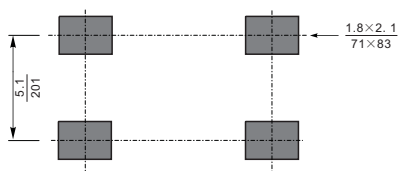
ULBF



ULBF mechanical data

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



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

Marking

Type number	Marking code
SLBF5M	SLBF5M