

CURRENT 8 Ampere
VOLTAGE RANG 1000 Volts

GLASS PASSIVATED SURFACE MOUNT BRIDGE RECTIFIER RECTIFIERS

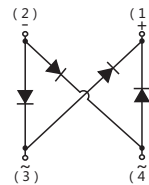
ULBFR810

ULBFR810

Features:

- Glass Passivated Chip Junction
- Reverse Voltage - 1000 V
- Forward Current - 8.0 A
- High Surge Current Capability
- Designed for Surface Mount Application

ULBFR-4



PINNING

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

Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	ULBFR810	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 $T_c = 100\text{ }^\circ\text{C}$	I_o	8.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	200	A
I^2t Rating for Fusing	I^2t	166	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	TYP	MAX	Units
Instantaneous forward voltage	V_F	$I_F = 6A$ $T_J = 25^\circ\text{C}$	—	1.1	V
Reverse current at DC blocking voltage	I_R	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	—	5 200	uA
Maximum Reverse Recovery Time	t_{rr}	Measured with $I_F = 0.5A, I_R = 1A,$ $I_{rr} = 0.25A.$	—	500	ns
Typical Junction Capacitance	C_j	$f = 1\text{MHz}, V_R = 4V$ DC $T_J = 25\text{ }^\circ\text{C}$	100	—	pF

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Fig.1 Average Rectified Output Current Derating Curve

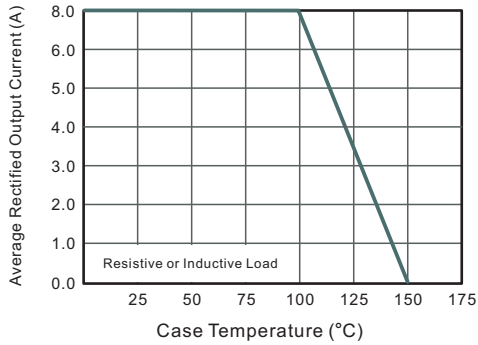


Fig.2 Typical Reverse Characteristics

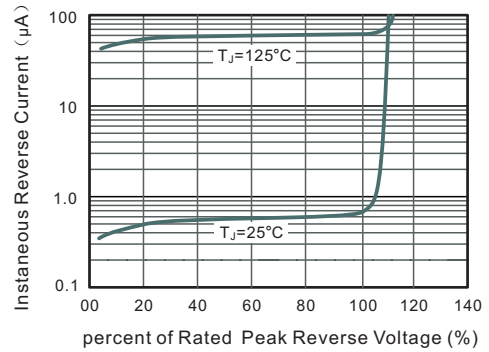


Fig.3 Typical Instantaneous Forward Characteristics

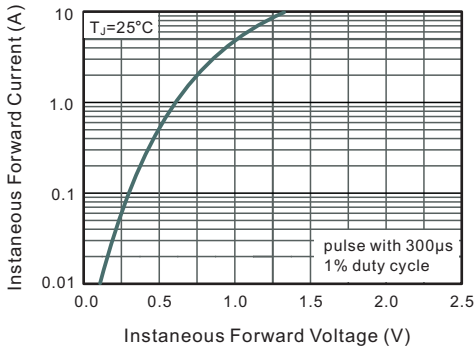


Fig.4 Typical Junction Capacitance

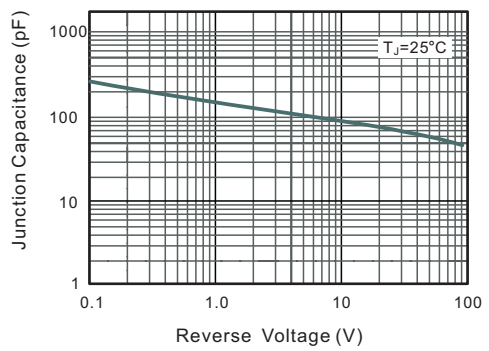


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

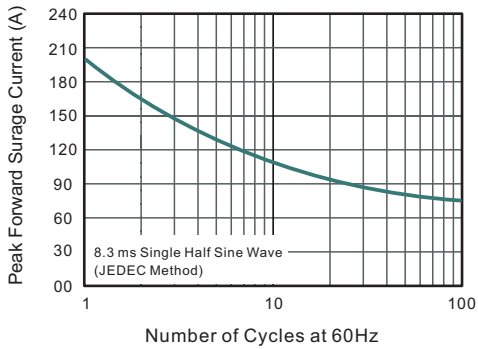
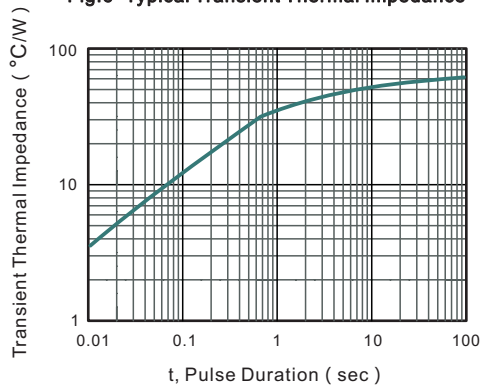


Fig.6- Typical Transient Thermal Impedance

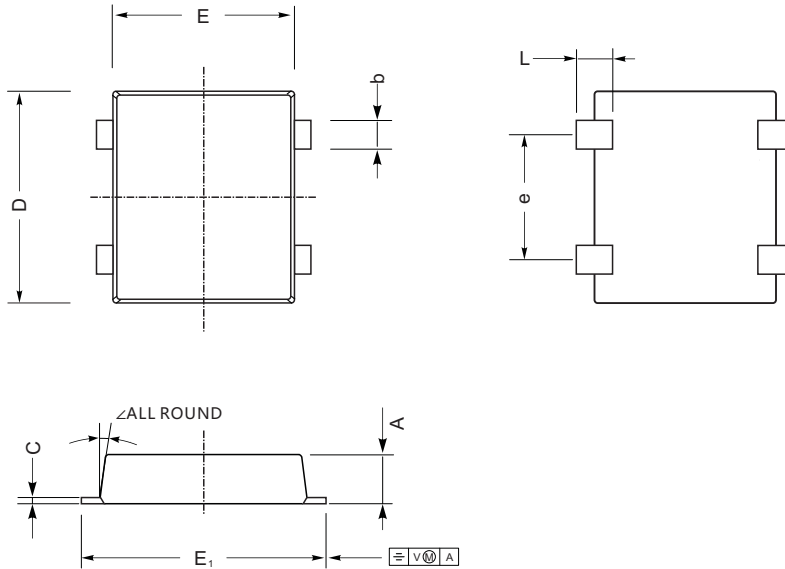


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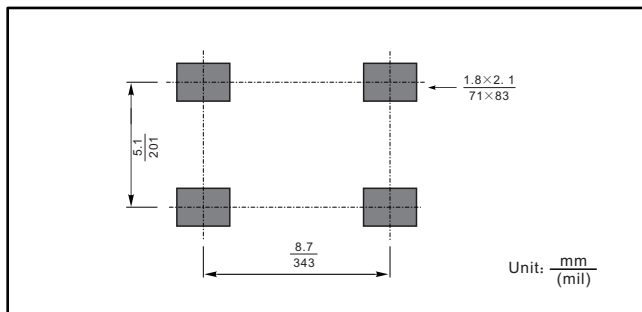
ULBFR



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



Marking

Type number	Marking code
ULBFR610	ULBFR610