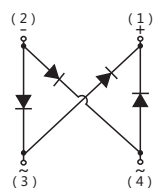


FEATURES

- Glass Passivated Chip Junction
- Reverse Voltage - 800 & 1000 V
- Forward Current - 6.0 A
- High Surge Current Capability
- Designed for Surface Mount Application

MECHANICAL DATA

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



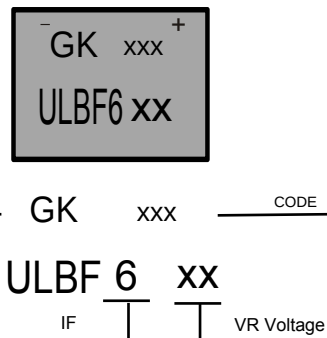
Internal Schematic

VOLTAGE RANGE

800 to 1000 Volts

CURRENT

6.0 Amperes



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	ULBF608	ULBF610	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	800	1000	V
Maximum RMS voltage	V_{RMS}	560	700	V
Maximum DC Blocking Voltage	V_{DC}	800	1000	V
Average Rectified Output Current	I_O	6.0		A
Peak Forward Surge Current 8.3 ms 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
Maximum Forward Voltage at 1.0 A	V_F	0.83 (typ.)		V
Maximum Forward Voltage at 3.0 A	V_F	1.0		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	60		pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	60 10 12		$^{\circ}\text{C/W}$
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.

RATING AND CHARACTERISTIC CURVES

Fig.1 Average Rectified Output Current Derating Curve

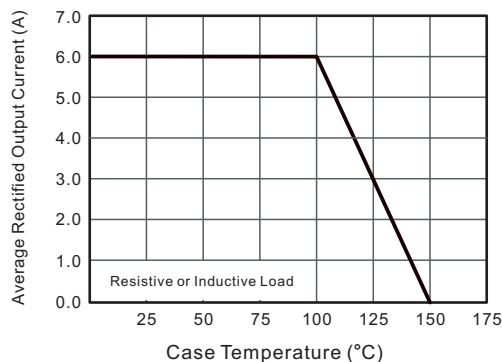


Fig.2 Typical Reverse Characteristics

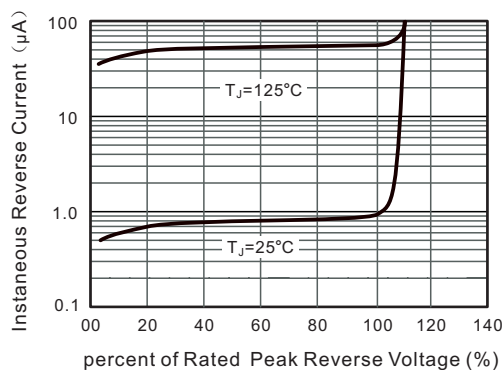


Fig.3 Typical Instaneous Forward Characteristics

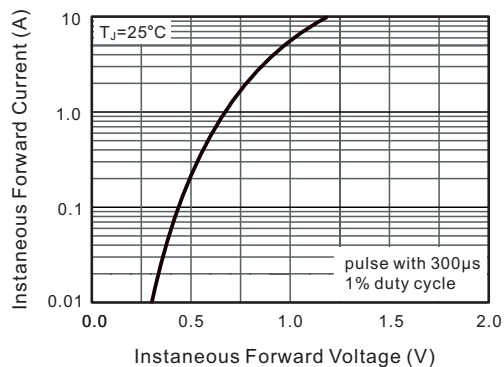


Fig.4 Typical Junction Capacitance

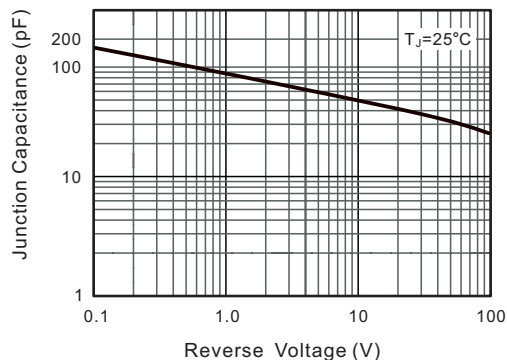


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

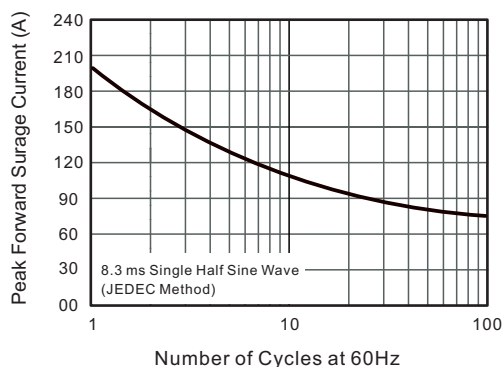
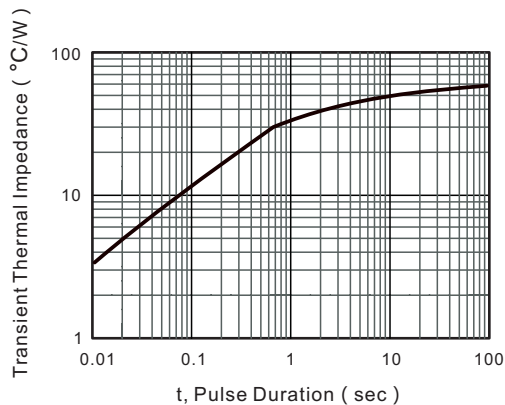
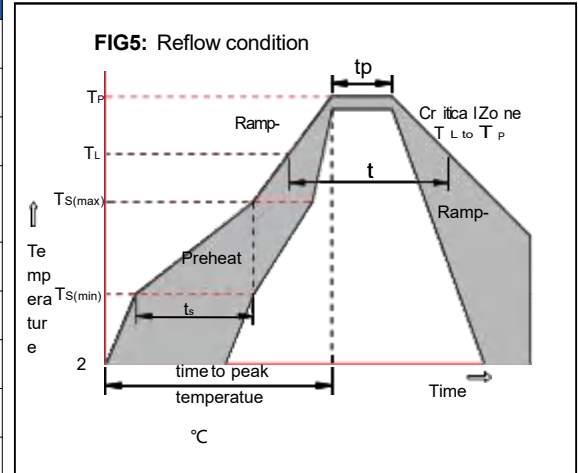


Fig.6 Typical Transient Thermal Impedance



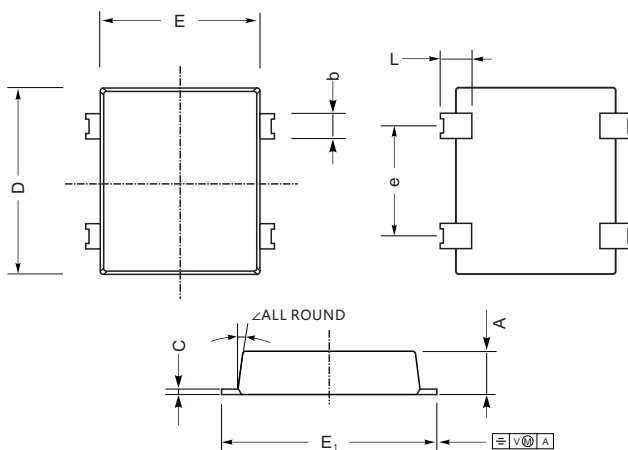
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C

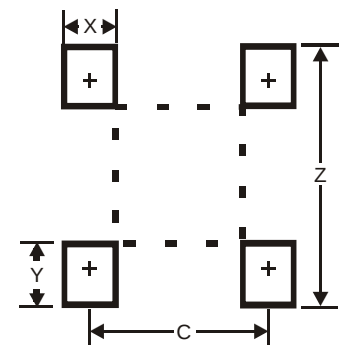


Package Dimensions & Suggested Pad Layout

ULBF

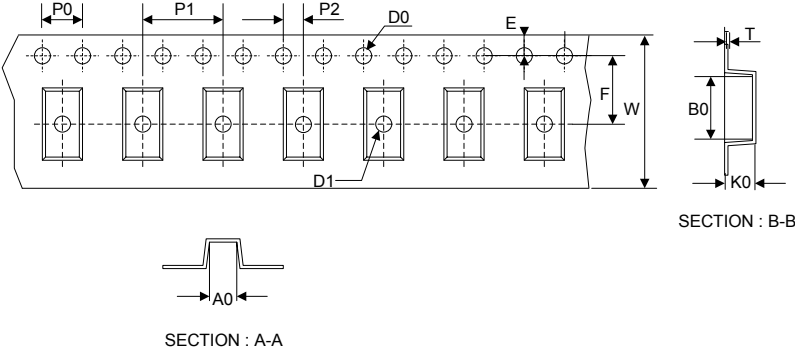
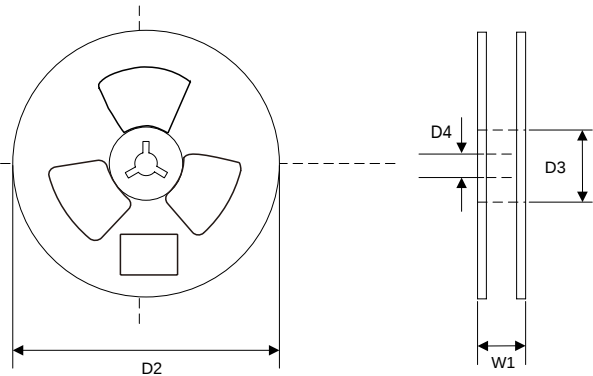


UNIT		A	C	D	E	E ₁	L	e	b	∠
mm	max	1.75	0.55	10.8	9.8	10.2	1.10	5.7	1.9	10°
	min	1.35	0.25	9.4	8.4	9.8	0.70	4.9	1.3	
mil	max	68	21.6	425	386	401	43	224	74	
	min	53	9.8	370	330	385	27	193	51	



Dimensions	mm
Z	11.5
X	2.2
Y	2.5
C	5.6

Tape & reel specification

Tape		Symbol	Dimension (mm)
		P0	4.00±0.20
		P1	12.00±0.20
		P2	2.00±0.20
		D0	1.60±0.15
		D1	1.60±0.15
		E	1.75±0.20
		F	7.50±0.15
		W	16.00±0.20
		A0	7.00±0.25
		B0	9.30±0.25
		K0	1.80±0.25
		T	0.25±0.10
		D2	330.0±5.0
		D3	73Min.
13" Reel		D4	16.0±2.5
		W1	21.0±3.0
		Quantity: 3000PCS	