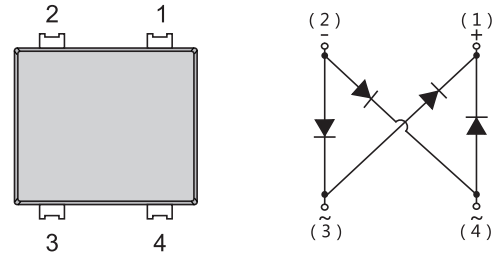


FEATURES:

- Glass Passivated Chip Junction
- Reverse Voltage - 1000 V
- Forward Current - 8.0 A
- Fast reverse recovery time
- Designed for Surface Mount Application

MECHANICAL DATA

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



UBF Package

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

PARAMETER	SYMBOL	RUBF810	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Average Rectified Output Current at $T_c = 80^\circ\text{C}$	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^2S
Typical Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	60	$^\circ\text{C}/\text{W}$
	$R_{\theta JC}$	6	
	$R_{\theta JL}$	14	
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^\circ\text{C}$

(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	$I_F = 8\text{A}$ $T_J = 25^\circ\text{C}$	—	1.3	V
Reverse current at DC blocking voltage	I_R	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	—	5 200	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	$f = 1\text{MHz}$, $V_R = 4\text{V DC}$ $T_J = 25^\circ\text{C}$	80	—	pF

Fig.1 Average Rectified Output Current Derating Curve

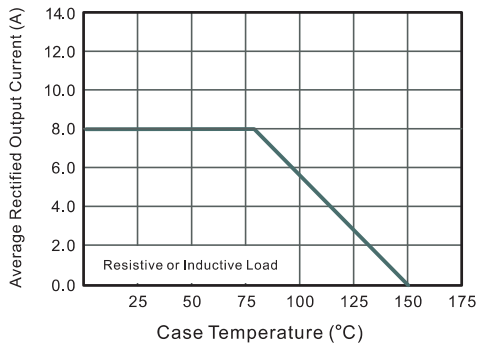


Fig.2 Typical Reverse Characteristics

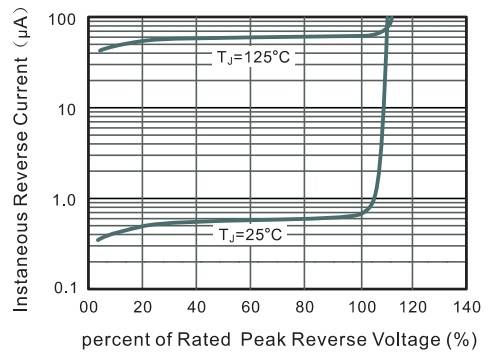


Fig.3 Typical Instantaneous Forward Characteristics

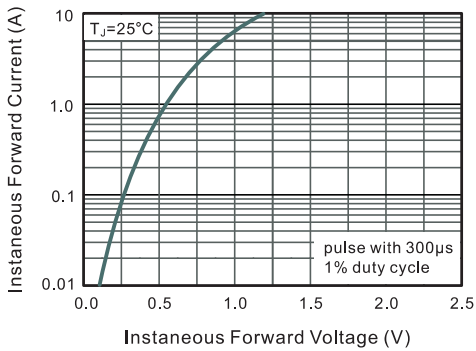


Fig.4 Typical Junction Capacitance

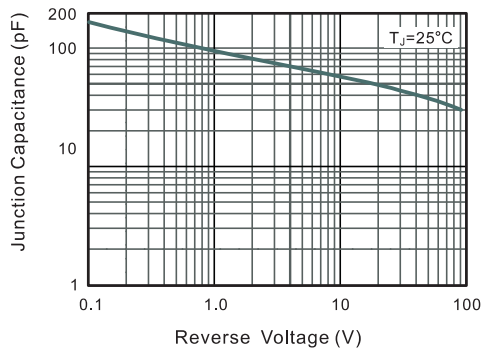


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

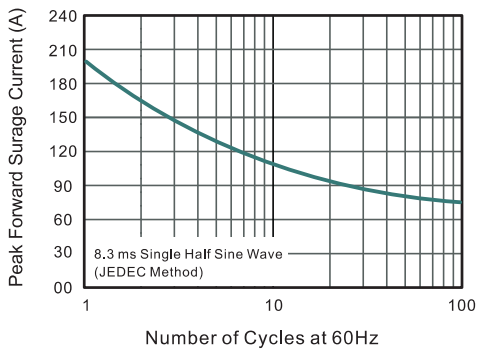
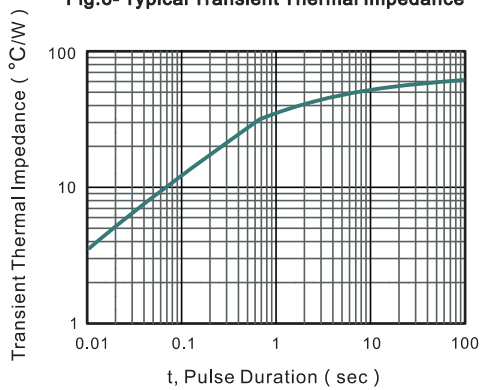


Fig.6- Typical Transient Thermal Impedance

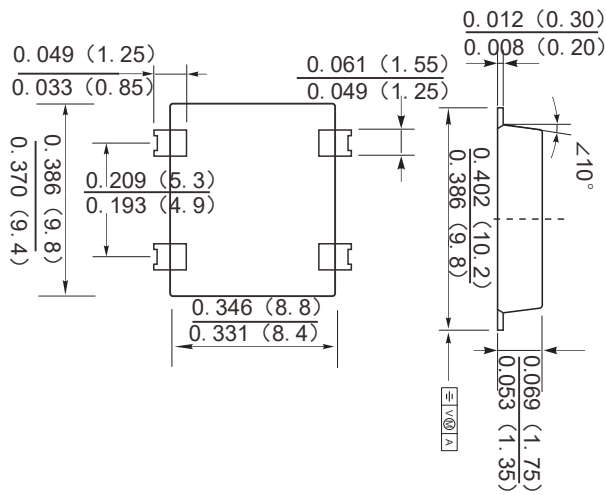


RUBF810

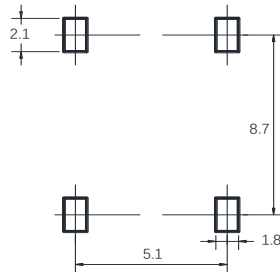
PACKAGE OUTLINE

UBF mechanical data

UBF



Suggested solder pad layout



Dimensions in millimeters