

## SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

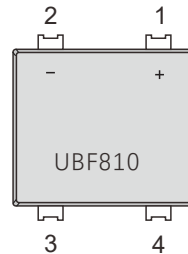
Reverse Voltage: 1000 Volts  
Forward Current: 8.0 Amps

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- Very high forward surge current capability
- Low forward voltage drop, High current capability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

**HALOGEN  
FREE**

UBF



Marking:

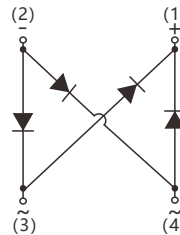
UBF810: Type  
+ -: Polarity

### MECHANICAL DATA

- Case: UBF molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, method 2026
- Mounting Position: Any

### TYPICAL APPLICATIONS

Used in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, charger, home appliances, office equipment, and telecommunication applications.



### MAXIMUM RATINGS

(Ratings at 25°C ambient temperature unless otherwise specified )

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	8.0	A
Peak forward surge current 8.3ms single half Sine-wave	$I_{FSM}$	230	A
Rating for fusing (t=8.3ms)	$I^2t$	219.5	A <sup>2</sup> s
Operating junction temperature range	$T_J$	-55 to +150	°C
Storage temperature range	$T_{stg}$	-55 to +150	°C

### ■ ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max	Unit
Breakdown voltage Blocking voltage	I <sub>r</sub> =100μA		V <sub>BR</sub> V <sub>R</sub>	1000	-	-	V
Instaneous forward voltage	T <sub>J</sub> =25°C	I <sub>f</sub> =1.0A	V <sub>f</sub> 1)	-	0.80	-	V
		I <sub>f</sub> =5.0A		-	0.89	-	
		I <sub>f</sub> =8.0A		-	0.93	1.10	
	T <sub>J</sub> =125°C	I <sub>f</sub> =1.0A		-	0.67	-	
		I <sub>f</sub> =5.0A		-	0.78	-	
		I <sub>f</sub> =8.0A		-	0.83	-	
Reverse current	T <sub>J</sub> =25°C	V <sub>R</sub> =1000V	I <sub>R</sub> 2)	-	-	5	μA
	T <sub>J</sub> =100°C			-	-	25	μA
	T <sub>J</sub> =125°C			-	-	100	
Junction capacitance	4V,1MHz		C <sub>J</sub>	-	46	-	pF

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Pulse test: pulse width ≤40ms

### ■ THERMAL CHARACTERISTICS

Parameter	Symbol	UBF	Unit
Typical thermal resistance <sup>3)</sup>	R <sub>θJA</sub>	60	°C/W
	R <sub>θJC</sub>	10	

Notes3: Mounted on glass epoxy PC board with 4×1.5"×1.5"(3.81×3.81cm)copper pad.

### ■ AVAILABALE PACK INFORMATION

Product code	Pack	Reel Size (mm )	Quantity (pcs/reel)	Quantity (reel/box)	Quantity (box/carton)	Quantity (K/carton)
UBF810-UBF	T/R	Φ330	3000	2	5	30

FIG.1-FORWARD CURRENT DERATING CURVE

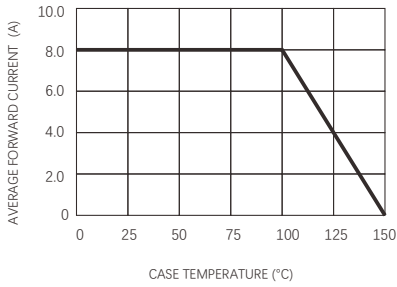


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

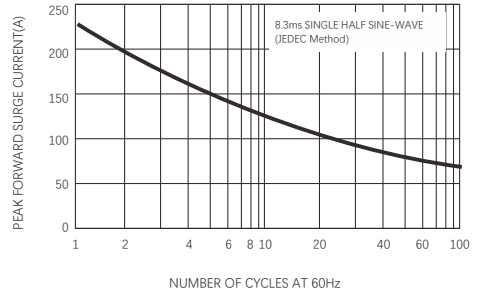


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

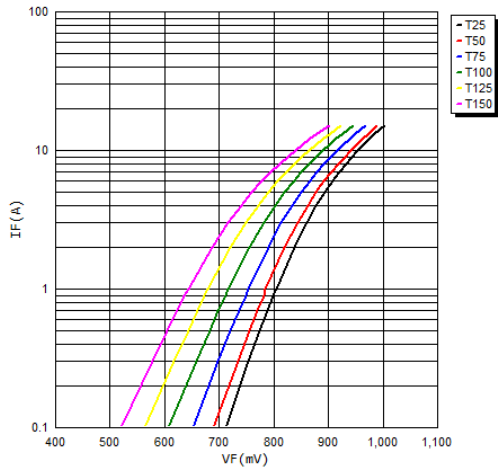


FIG.4-TYPICAL REVERSE CHARACTERISTICS

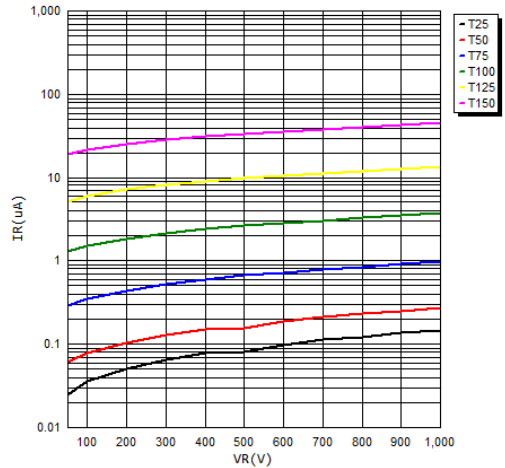
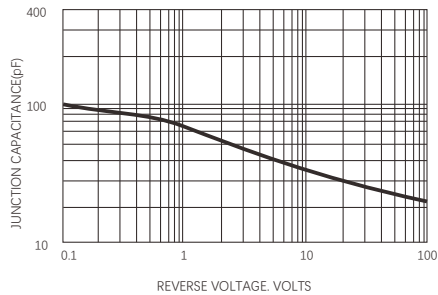
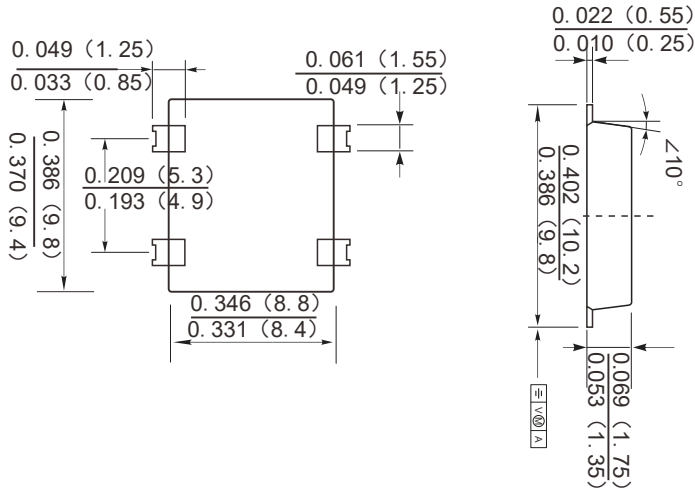


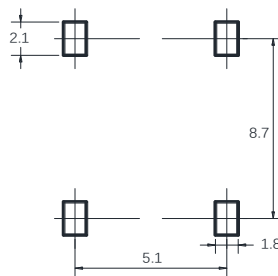
FIG.5-TYPICAL JUNCTION CAPACITANCE



UBF



Suggested solder pad layout



Dimensions in millimeters