SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

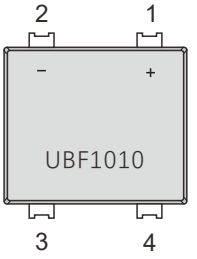
Reverse Voltage: 1000 Volts
Forward Current: 10.0 Amps

■ 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

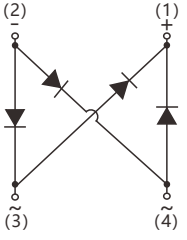


Marking:

UBF1010: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℃ ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	10.0	A
Peak forward surge current 8.3ms single hanf Sine-wave	I_{FSM}	250	A
Rating for fusing (t=8.3ms)	I^2t	259	A^2s
Operating junction temperature range	T_J	-55 to+150	℃
Storage temperature range	Tstg	-55 to+150	℃

■ ELECTRICAL CHARACTERISTICS (T_J=25℃ Unless otherwise noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max	Unit
Breakdown voltage Blocking voltage	I_R=100μA		V_{BR} V_R	1000	-	-	V
Instaneous forward voltage	T_J=25℃	I_F=1.0A	V_F 1)	-	0.81	-	V
		I_F=5.0A		-	0.89	-	
		I_F=10.0A		-	0.95	1.10	
	T_J=125℃	I_F=1.0A		-	0.67	-	
		I_F=5.0A		-	0.77	-	
		I_F=10.0A		-	0.84	-	
Reverse current	T_J=25℃	V_R=1000V	I_R 2)	-	-	5	μA
	T_J=100℃			-	-	25	μA
	T_J=125℃			-	-	100	
Junction capacitance	4V,1MHz		C_J	-	52	-	pF

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

2.Pulse test: pulse width≤40ms

■ THERMAL CHARACTERISTCS

Parameter	Symbol	UBF	Unit
Typical thermal resistance 3)	RθJA RθJC	60 10	℃/W

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)
UBF1010-UBF	T/R	Φ330	3000	2	5	30

FIG.1-FORWARD CURRENT DERATING CURVE

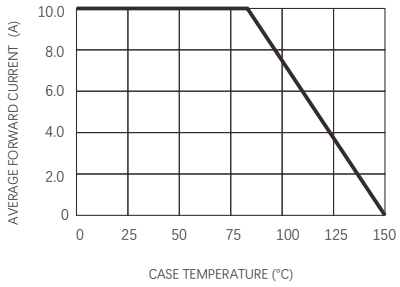


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

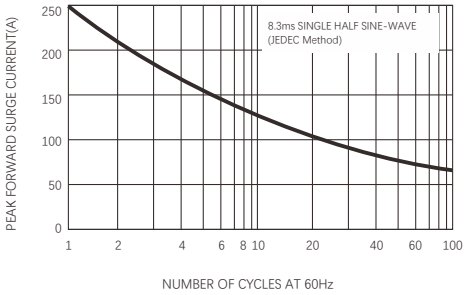


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

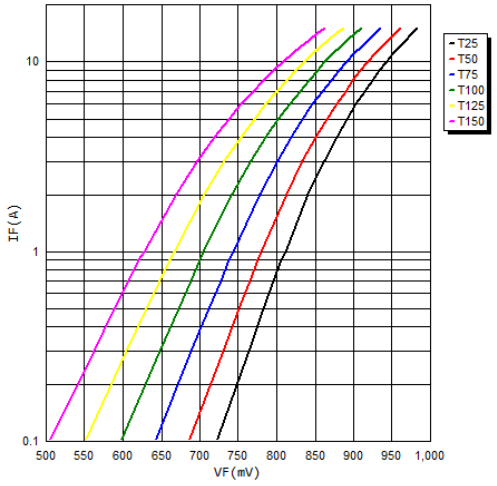


FIG.4-TYPICAL REVERSE CHARACTERISTICS

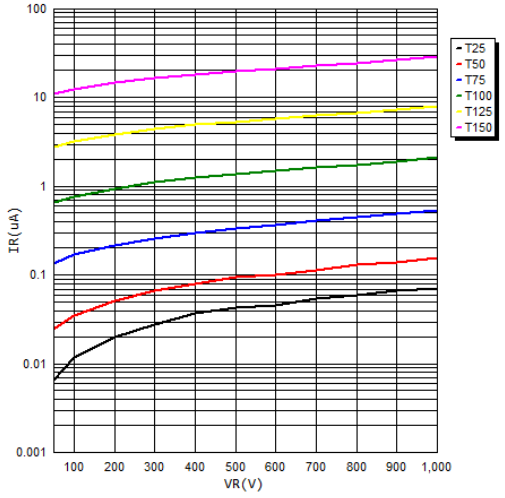
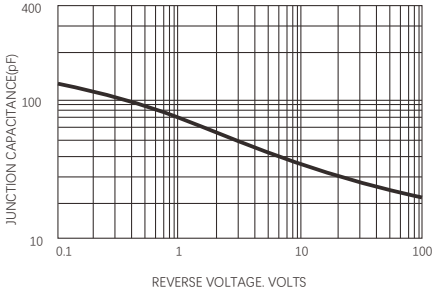
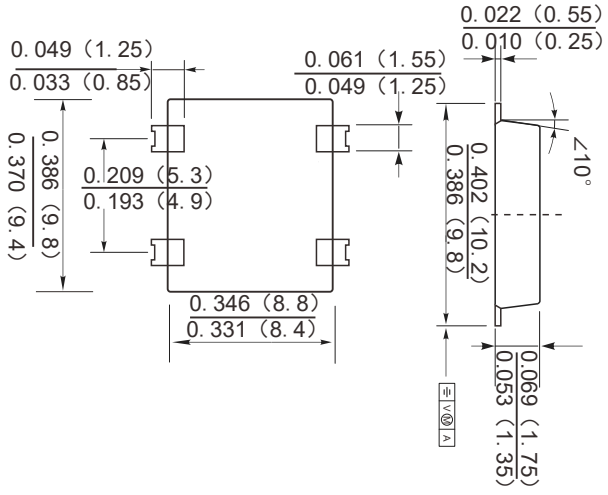


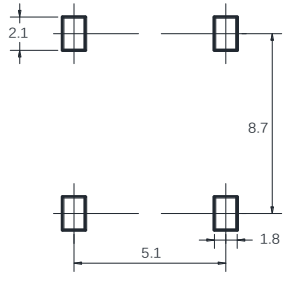
FIG.5-TYPICAL JUNCTION CAPACITANCE



UBF



Suggested solder pad layout



Dimensions in millimeters