

1.0A SURFACE MOUNT GLASS PASSIVATED BRIDGE

RECTIFIER Reverse Voltage - 100 to 1000 V

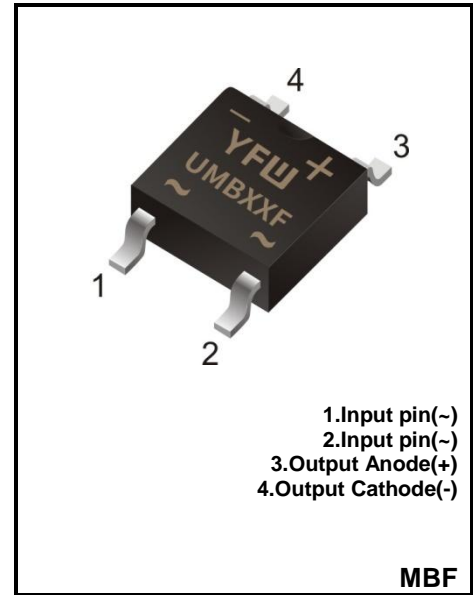
Forward Current – 1.0A

FEATURES

- ◆Fast reverse recovery time
- ◆Designed for Surface Mount Application
- ◆Glass Passivated Chip Junction
- ◆Low power loss, high efficiency
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆Case: MBF
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx. Weight: 75mg / 0.0026oz



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

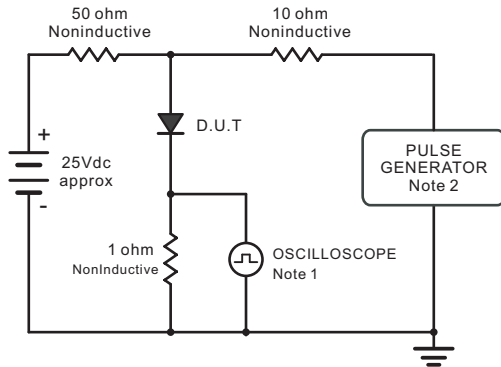
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	UMB1F	UMB2F	UMB4F	UMB6F	UMB8F	UMB10F	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current at $T_c = 125\text{ }^\circ\text{C}$	I_o	1.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load(JEDEC method)	I_{FSM}	35						A
Forward Voltage per element at 1.0A	V_F	1.0		1.3		1.5		V
Maximum DC Reverse Current @ $T_A=25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125\text{ }^\circ\text{C}$	I_R	5.0 100						μA
Typical Junction Capacitance ^(Note1)	C_j	18						pF
Maximum Reverse Recovery Time ^(Note2)	T_{RR}	50			75			nS
Typical Thermal Resistance ^(Note3)	$R_{\theta JA}$ $R_{\theta JC}$	80 25						$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						$^\circ\text{C}$

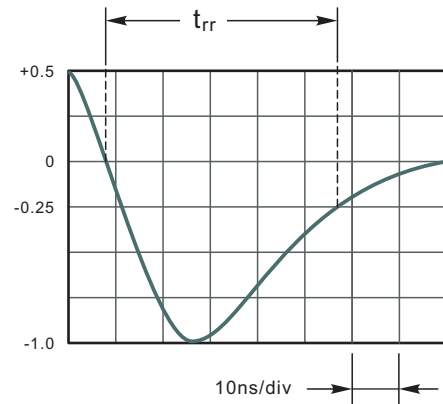
(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) Mounted on glass epoxy PC board with 4x1.5"x1.5" (3.81x3.81 cm) copper pad.

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm, 22pF.
2. Rises Time = 10ns, max.
Source Impedance = 50 ohms.



Set time Base for 10ns/div

Fig.2 Maximum Average Forward Current Rating

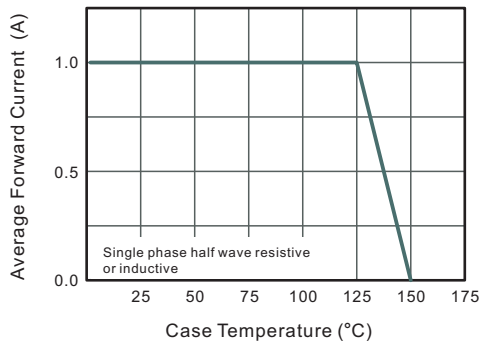


Fig.3 Typical Reverse Characteristics

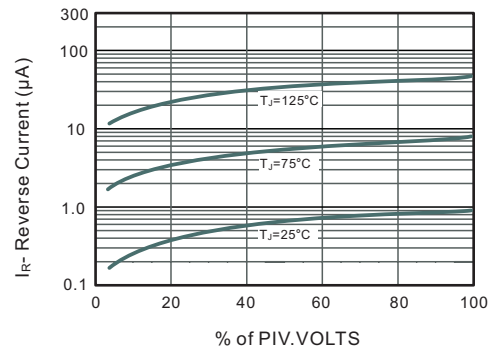


Fig.3 Typical Instaneous Forward Characteristics

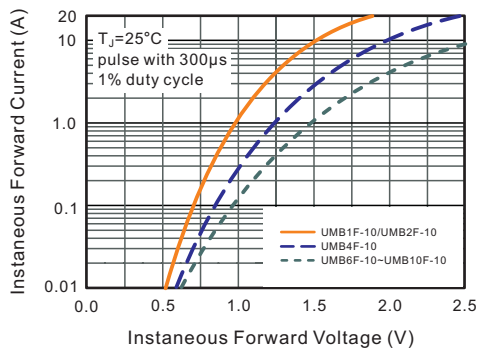
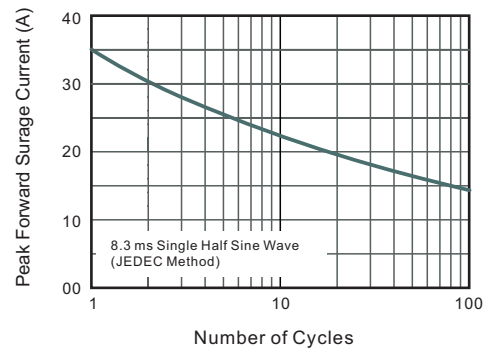
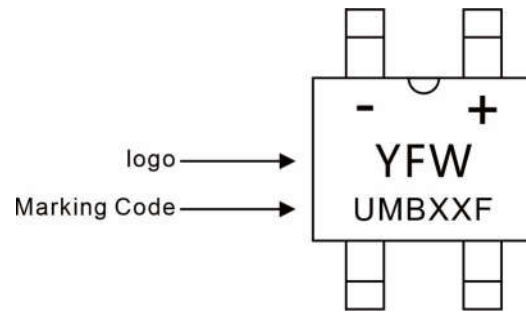


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



Marking Diagram



Ordering information

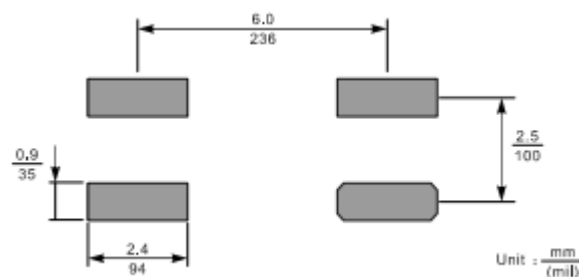
Package	Packing Description	Packing Quantity
MBF	Tape/Reel, 13" reel	5000PCS/Reel 50000PCS/Carton

Package Dimensions

MBF

Dim.	Millimeter(mm)		(mil)	
	Min.	Max.	Min.	Max.
A	1.2	1.6	51	59
C	0.15	0.22	5.9	8.7
D	4.5	5.0	193	205
E	3.6	4.1	166	177
HE	6.4	7.0	236	252
d	2.3	2.7	150	165
e	0.5	0.8	20	28
L	1.3	1.7	51	57
L1	0.5	1.1	20	43
a	/	0.2	/	8
∠	7°			

The recommended mounting pad size



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