

## Surface Mount Glass Passivated Bridge Rectifiers

### Features

- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Fast reverse recovery time
- Designed for Surface Mount Application

### MBF



- 1.Input Pin(~) 2.Input Pin(~)  
3.Output Anode(+) 4.Output Cathode (-)

### Marking Code:

UMB1F-10: U10F1  
UMB2F-10: U10F2  
UMB4F-10: U10F4  
UMB6F-10: U10F6  
UMB8F-10: U10F8  
UMB10F-10: U10F10

### Maximum Ratings and Electrical Characteristics

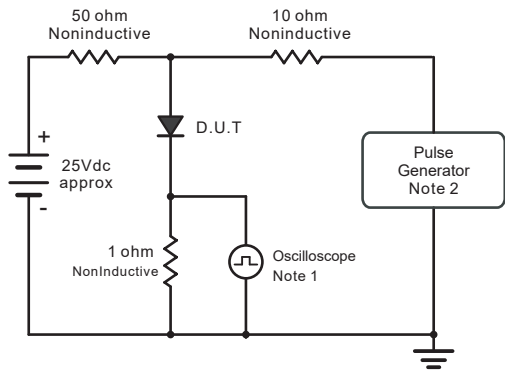
Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter		Symbols	UMB1F-10	UMB2F-10	UMB4F-10	UMB6F-10	UMB8F-10	UMB10F-10	Units
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	100	200	400	600	800	1000	V
Maximum RMS Voltage		V <sub>RMS</sub>	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		V <sub>DC</sub>	100	200	400	600	800	1000	V
Maximum Average Rectified Output Current at T <sub>C</sub> =125°C		I <sub>O</sub>	1.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)		I <sub>FSM</sub>	35						A
Maximum Instantaneous Forward Voltage at 1 A		V <sub>F</sub>	1.0		1.3	1.5			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>A</sub> =25°C	I <sub>R</sub>	5						μA
	T <sub>A</sub> =125°C		100						
Typical Junction Capacitance <sup>Note1</sup>		C <sub>j</sub>	18						pF
Typical Thermal Resistance <sup>Note2</sup>		R <sub>θJA</sub>	80						°C/W
		R <sub>θJC</sub>	25						
Maximum Reverse Recovery Time <sup>Note3</sup>		t <sub>rr</sub>	50			75			nS
Junction Temperature		T <sub>J</sub>	150						°C
Storage Temperature Range		T <sub>STG</sub>	-55 to +150						°C

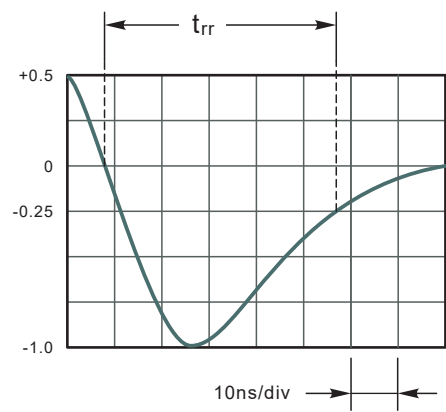
### Note:

1. Measured at 1 MHz 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.
3. Measured with  $I_F = 0.5\text{ A}$ ,  $I_R = 1\text{ A}$ ,  $t_{rr} = 0.25\text{ A}$ .

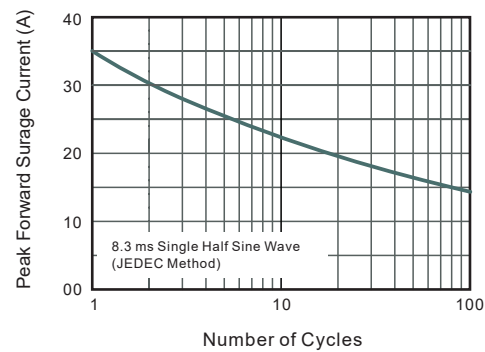
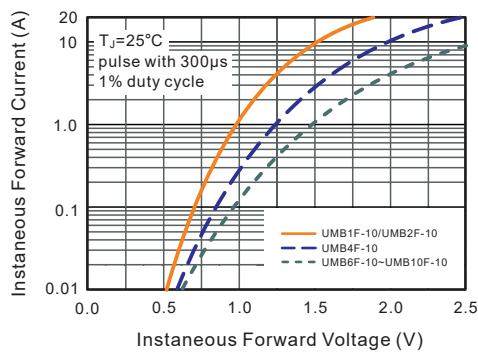
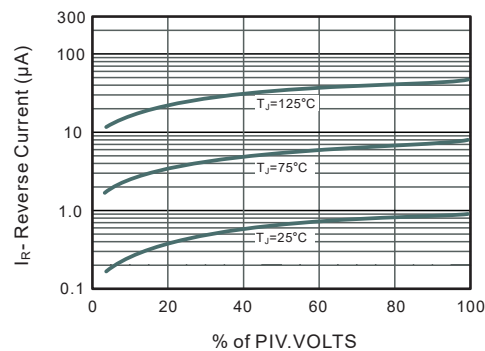
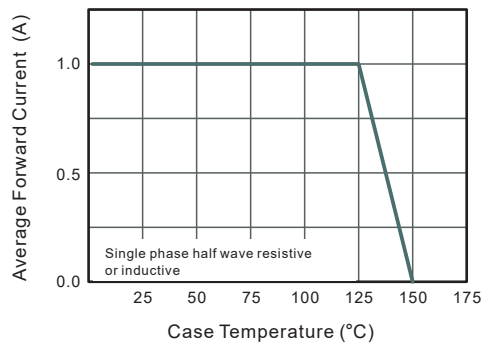
Typical Characteristic Curves



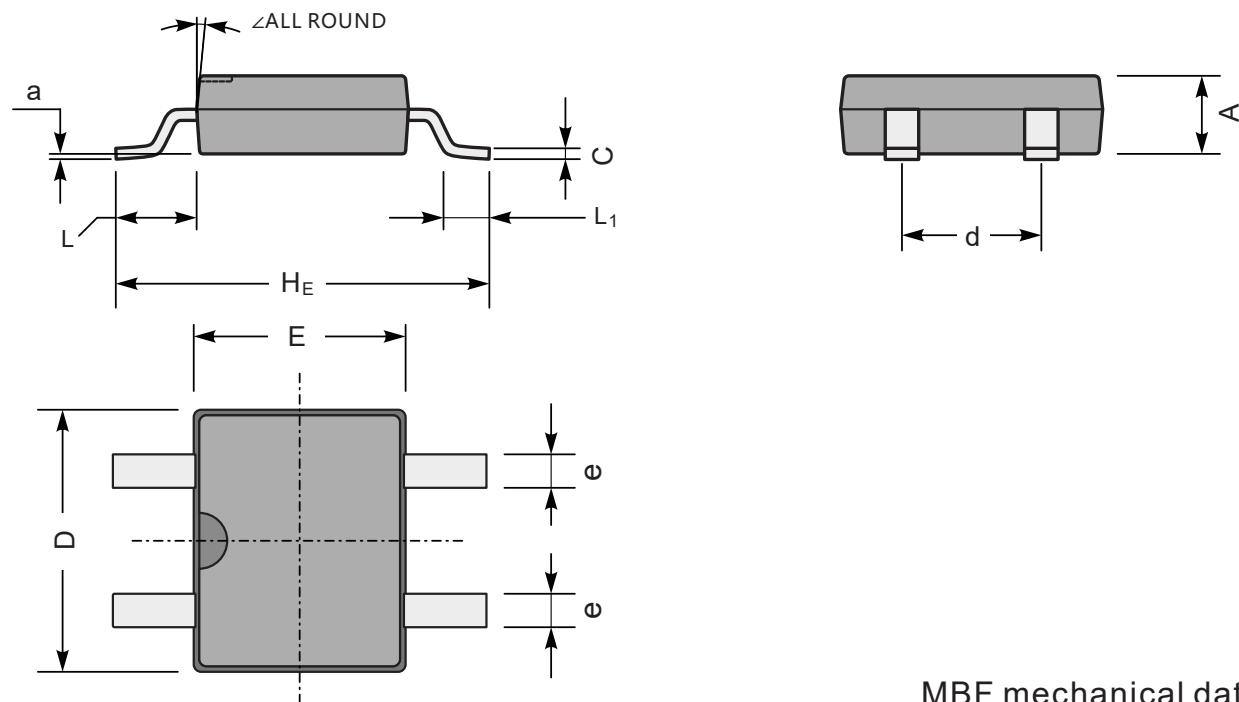
Note: 1. Rise Time = 7ns, max.  
Input Impedance = 1megohm,22pF.  
2. i es Time =10ns, max.  
Source Impedance = 50 ohms.



Set time Base for 10ns/div



Package Outline (MBF Dimensions in mm)




MBF mechanical data

UNIT		A	C	D	E	H <sub>E</sub>	d	e	L	L <sub>1</sub>	a	∠
mm	max	1.6	0.22	5.0	4.1	7.0	2.7	0.8	1.7	1.1	0.2	7°
	min	1.2	0.15	4.5	3.6	6.4	2.3	0.5	1.3	0.5	—	
mil	max	63	8.7	197	161	276	106	31	67	43	8	
	min	47	5.9	177	142	252	91	20	51	20	—	

Contact Information

TANI website: <http://www.tanisemi.com> Email:tani@tanisemi.com

For additional information, please contact your local Sales Representative.

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