

## UMB05F THRU UMB10F

1.0A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER



### FEATURES

- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded plastic technique
- \* High surge current capability
- \* Polarity: Symbol molded on body
- \* Mounting position: Any
- \* Weight: 0.12 grams

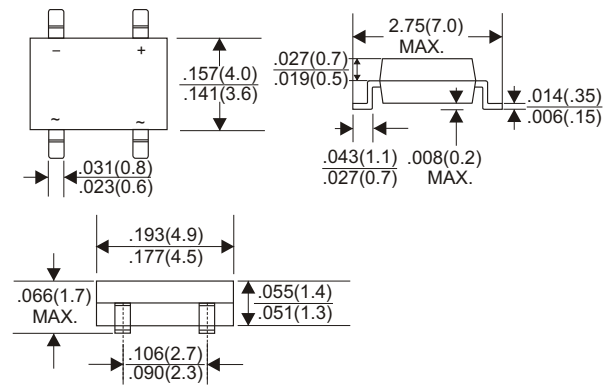
### VOLTAGE RANGE

50 to 1000 Volts

### CURRENT

1.0 Ampere

### MBF



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

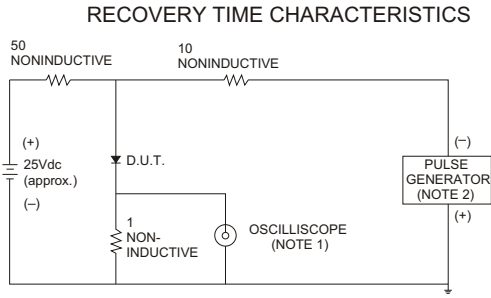
TYPE NUMBER	UMB05F	UMB1F	UMB2F	UMB4F	UMB6F	UMB8F	UMB10F	UNIT
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Ta=25°C	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30							A
Maximum Forward Voltage Drop per Bridge Element at 1.0A.	1.0		1.3		1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0							μA
	200							μA
Maximum Reverse Recovery Time (Note 1)	50				75			nS
Typical Junction Capacitance (Note 2)	18							pF
Typical Thermal Resistance R <sub>JA</sub> (Note 3)	80							°C/W
Operating and Storage Temperature Range T <sub>J</sub> , T <sub>STG</sub>	-65 — +150							°C

#### NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Thermal Resistance from Junction to Ambient.

## RATING AND CHARACTERISTIC CURVES (UMB05F THRU UMB10F)

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE



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

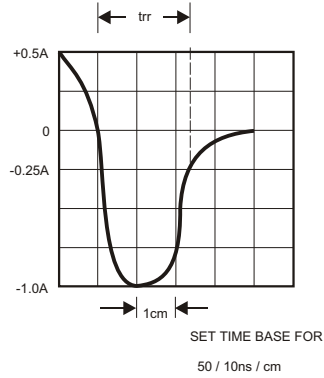


FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

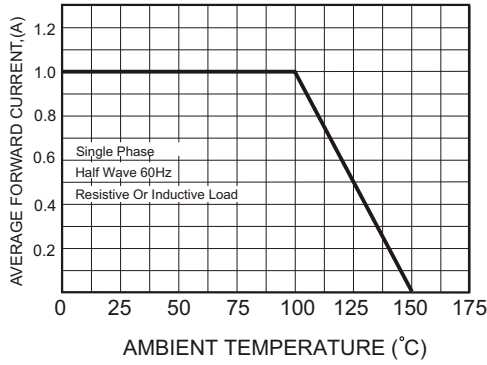


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

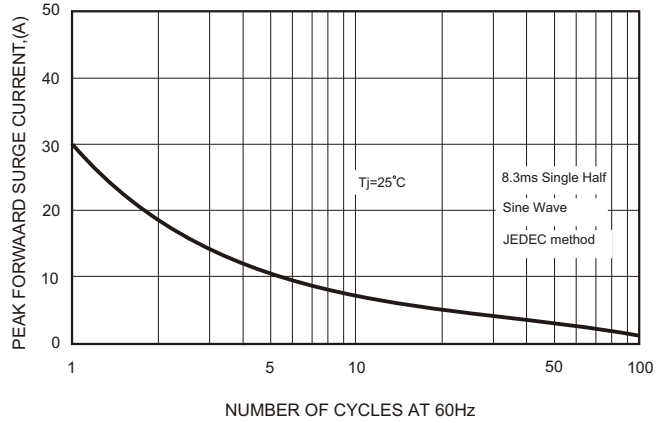


FIG.4-TYPICAL FORWARD CHARACTERISTICS

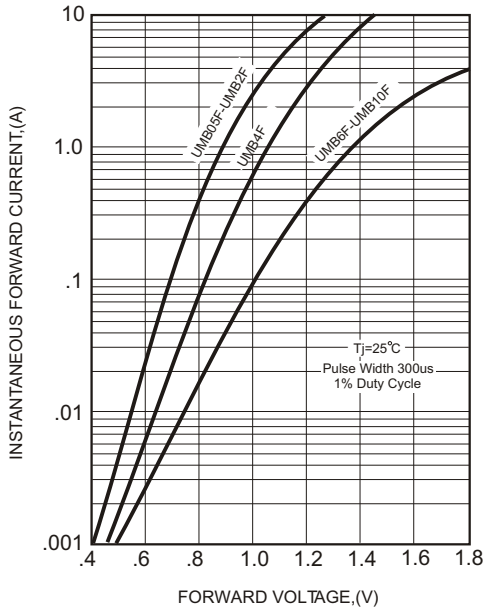


FIG.5-TYPICAL REVERSE CHARACTERISTICS

