

GLASS PASSIVATED ULTRA FAST RECOVERY BRIDGE RECTIFIERS

Features

- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ High temperature soldering guaranteed: 260°/10 seconds at 5 lbs., (2.3kg) tension
- ◆ Small size, simple installation
- ◆ High surge current capability

Mechanical Data

Case : JEDEC MBF Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

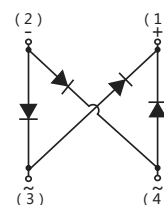
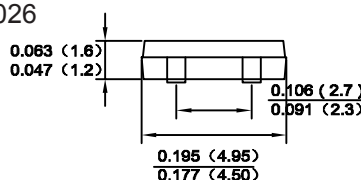
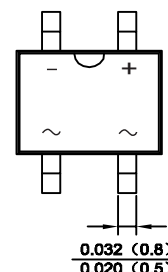
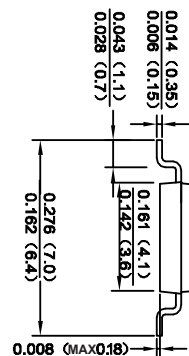
Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.008 ounce, 0.22 grams

MBF

ROHS
COMPLIANT



Maximum Ratings And Electrical Characteristics

Dimensions in inches and (millimeters)

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	SYMBOLS	MDD UMB2F	MDD UMB4F	MDD UMB6F	MDD UMB8F	MDD UMB10F	UNITS
Marking Code							
Maximum repetitive peak reverse voltage	V _{RRM}	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	200	400	600	800	1000	V
Maximum average forward rectified current On glass-epoxy P.C.B.(Note1) On aluminum substrate(Note2)	I _{F(AV)}	1.0					A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	35					A
Maximum instantaneous forward voltage drop per leg at 1.0A	V _F	1.0	1.3	1.5			V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	5 100					uA
Maximum reverse recovery time Note2	t _{rr}	50		75			nS
Typical Junction Capacitance Note1	C _j	18					pF
Typical thermal resistance Note3	RθJL RθJA	80 25					°C/W
Operating temperature range	T _J	-55 to +150					°C
storage temperature range	T _{STG}	-55 to +150					°C

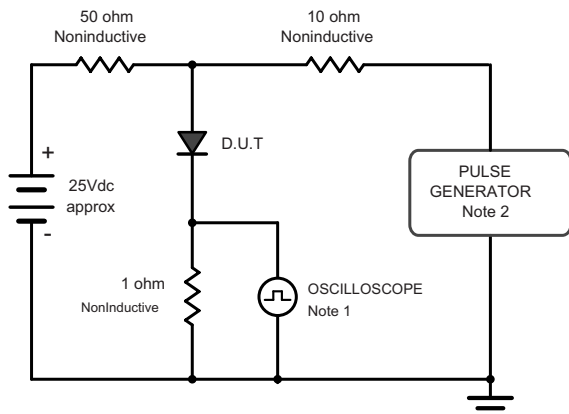
Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

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

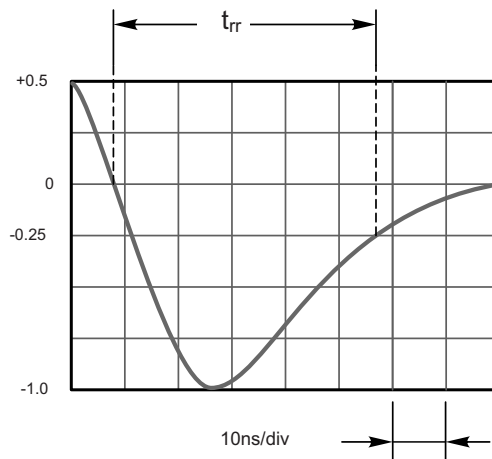
3. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

Ratings And Characteristic Curves

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



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



Set time Base for 10ns/div

Fig.2 Maximum Average Forward Current Rating

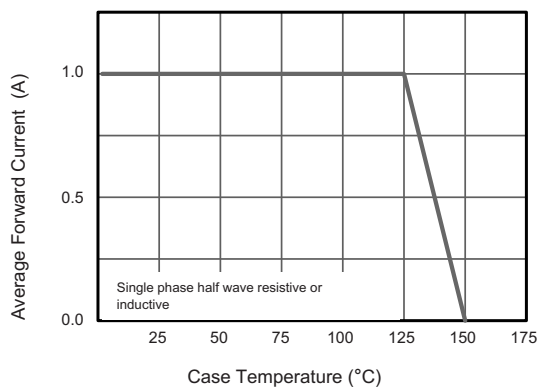


Fig.3 Typical Reverse Characteristics

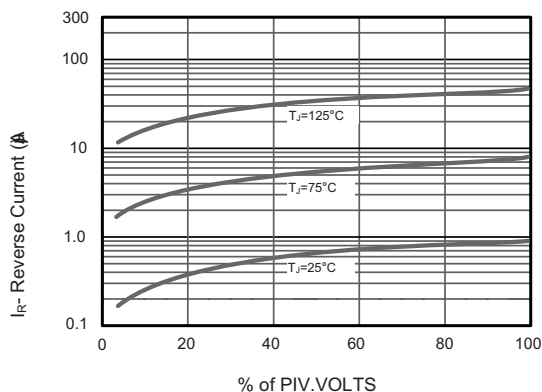


Fig.3 Typical Instantaneous Forward Characteristics

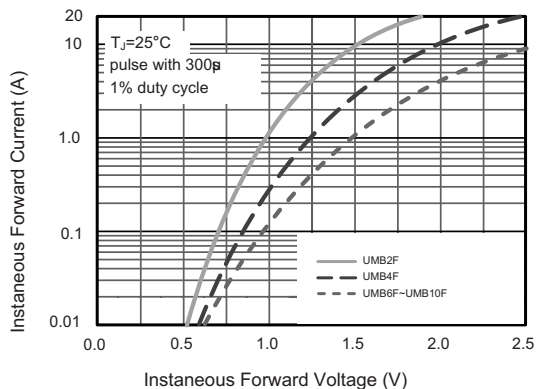
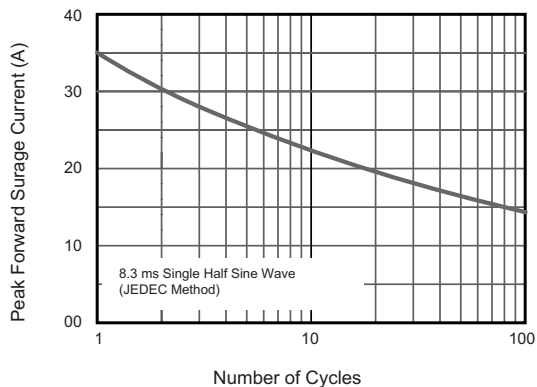
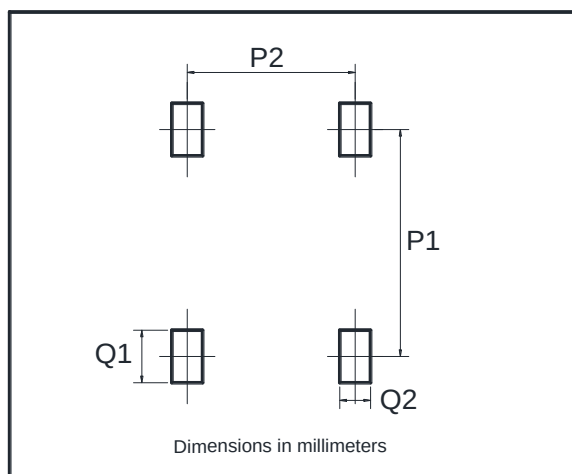


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.

Suggested Pad Layout



Dim	Min
P1	6.00
P2	2.40
Q1	1.84
Q2	1.20