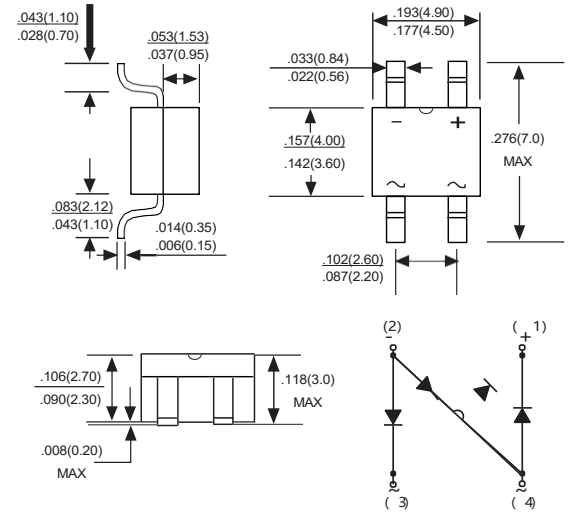


GLASS PASSIVATED ULTRA FAST RECOVERY BRIDGE RECTIFIERS

Features

- ◆ Glass Passivated Chip Junction
- ◆ Reverse Voltage - 100 to 1000 V
- ◆ Forward Current - 1.0 A
- ◆ Fast reverse recovery time
- ◆ Designed for Surface Mount Application

MBS



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

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	UMB1S	UMB2S	UMB4S	UMB6S	UMB8S	UMB10S	UNITS
Marking Code								
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 °C	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
Typical Junction Capacitance (NOTE 1)	C _J	18						pF
Maximum reverse recovery time (NOTE 3)	t _{rr}	50			75			ns
Typical thermal resistance(NOTE 2)	RθJA RθJC	80 30						°C/W
Operating temperature range	T _J	-55 to +150						°C
storage temperature range	T _{STG}	-55 to +150						°C

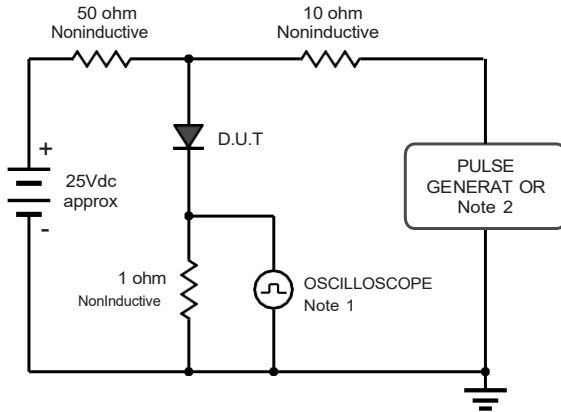
NOTES:1.Measured at 1MHz and applied reverse voltage of 4 V D.C..

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

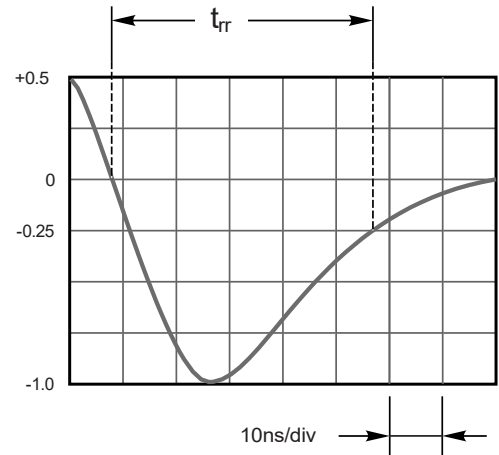
3. Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$.

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. t_{rr} Time = 10ns, max.
Source Impedance = 50 ohms.



Set time Base for 10ns/div

Fig.2 Maximum Average Forward Current Rating

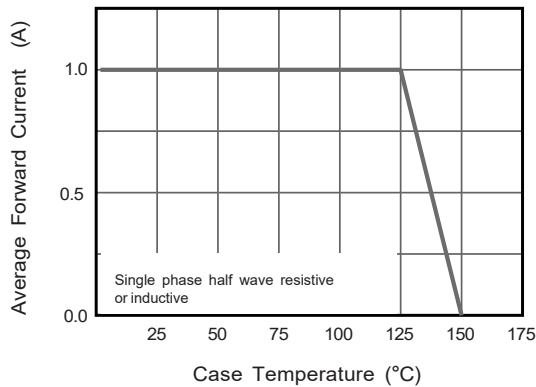


Fig.3 Typical Reverse Characteristics

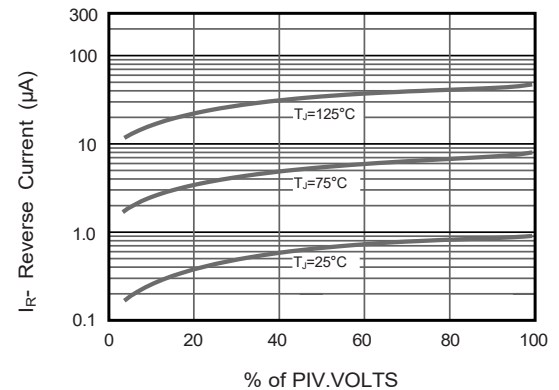


Fig.3 Typical Instantaneous Forward Characteristics

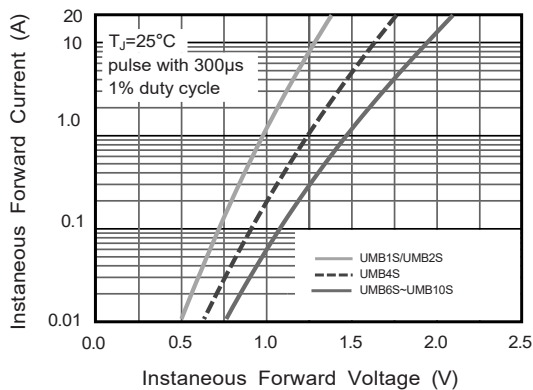
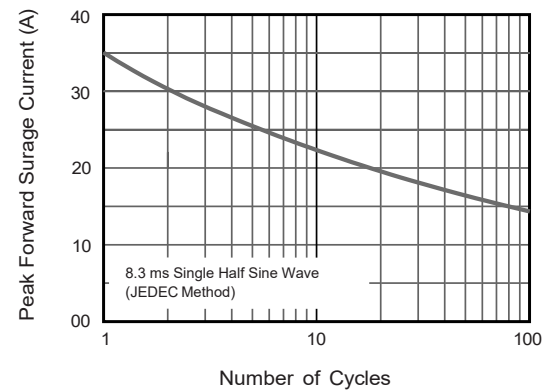
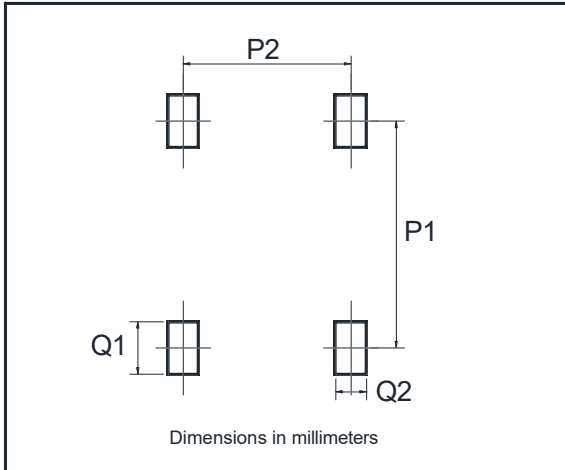


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.

Suggested Pad Layout



Dim	Min
P1	6.00
P2	2.40
Q1	1.84
Q2	1.20