

GLASS PASSIVATED SURFACE MOUNT BRIDGE RECTIFIERS

Features

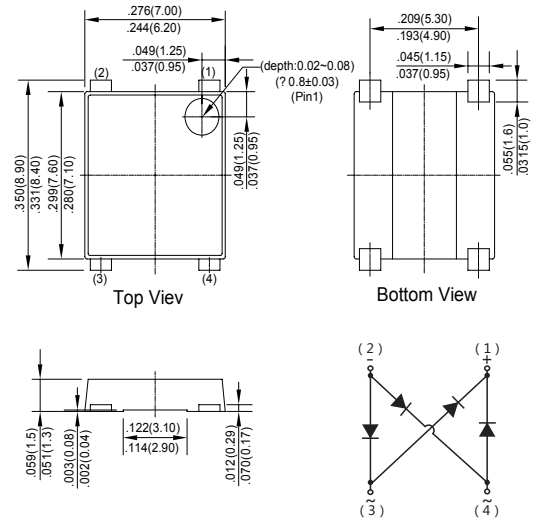
- ◆ Glass Passivated Chip Junction
- ◆ Reverse Voltage - 100 to 1000 V
- ◆ Forward Current- 4.0 A
- ◆ Fast reverse recovery time
- ◆ Designed for Surface Mount Application

UMSB

RoHS
COMPLIANT

Mechanical Data

Case : JEDEC UMSB molded plastic body
 Terminals : Solderable per MIL-STD-750, Method 2026
 Polarity : Polarity symbol marking on body
 Mounting Position : Any
 Weight : 0.00825 ounce, 0.234 grams



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	MDD RMSB40B	MDD RMSB40D	MDD RMSB40G	MDD RMSB40J	MDD RMSB40K	MDD RMSB40M	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
Maximum Average Forward Rectified Current	I _{F(AV)}	4						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	95						A
Maximum Forward Voltage at 4.0 A	V _F	1.3						V
Maximum DC Reverse Current @T _a =25 °C at Rated DC Blocking Voltage @T _a =125 °C	I _R	5.0 200						μA
Typical Junction Capacitance (Note 1)	C _j	50						pF
Typical Thermal Resistance (Note2)	R _{θJA} R _{θJC} R _{θJL}	60 15 25						°C/W
Maximum Reverse Recovery Time (Note3)	t _{rr}	150			250	500		ns
Operating and Storage Temperature Range	T _J , T _{stg}	-55 ~ +150						°C

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

2. Mounted on glass epoxy PC board with $4 \times 1.5 \times 1.5$ (3.81 $\times$ 3.81 cm) copper pad areas.

3. Measured with $I = 0.5 \text{ A}$, $I = 1 \text{ A}$, $I_{rr} = 0.25 \text{ A}$.

Typical Characteristics

Fig.1 Average Rectified Output Current Derating Curve

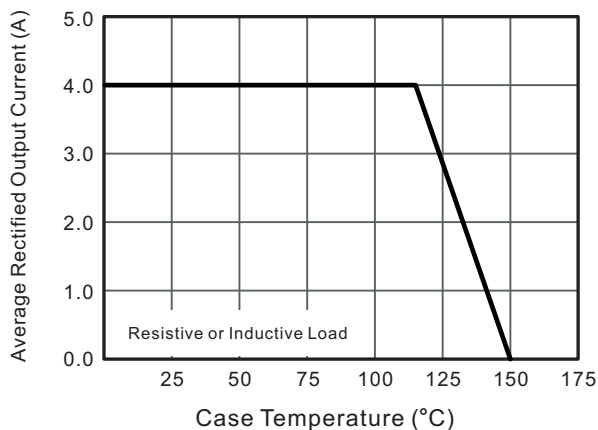


Fig.2 Typical Reverse Characteristics

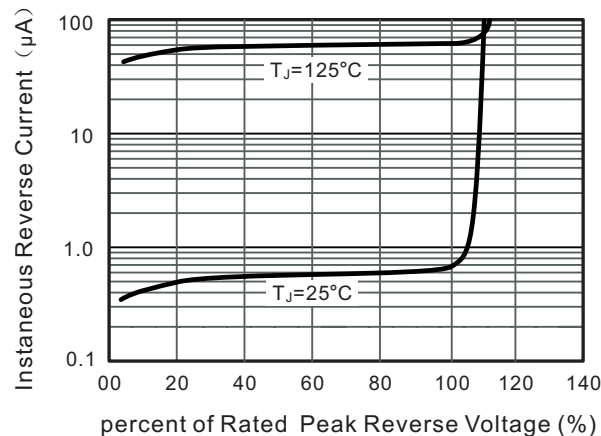


Fig.3 Typical Instantaneous Forward Characteristics

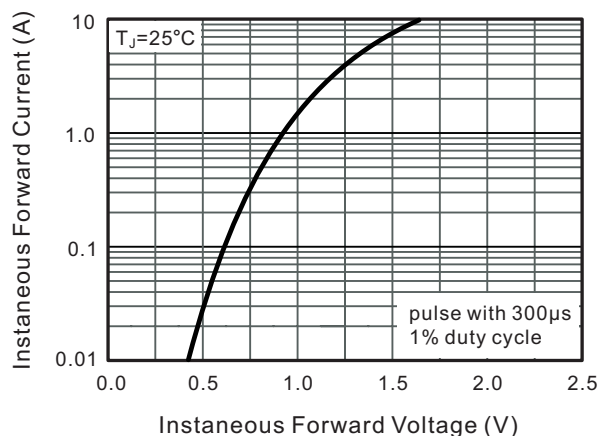


Fig.4 Typical Junction Capacitance

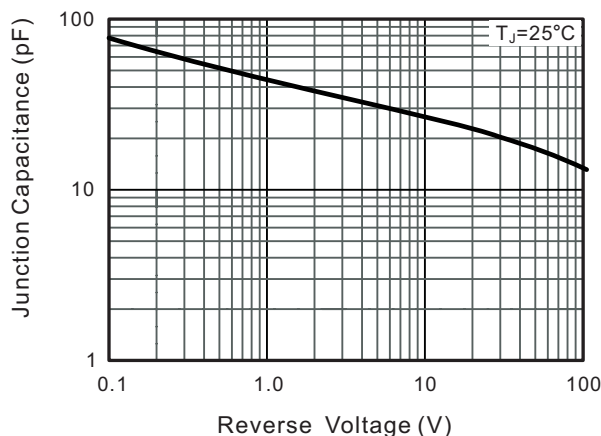


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

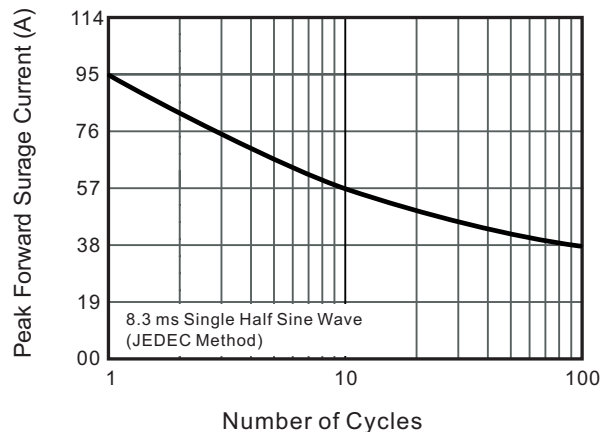
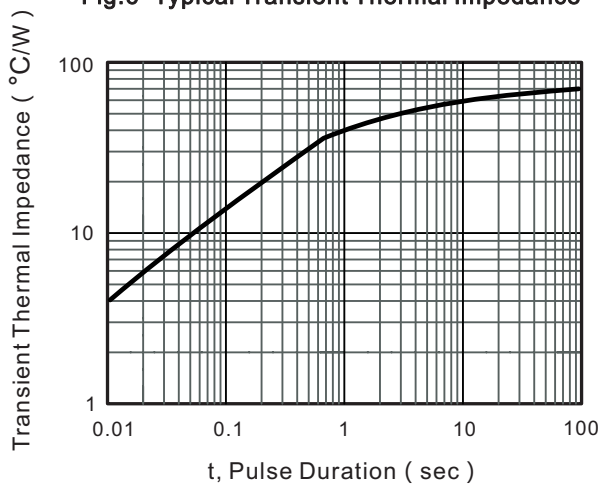
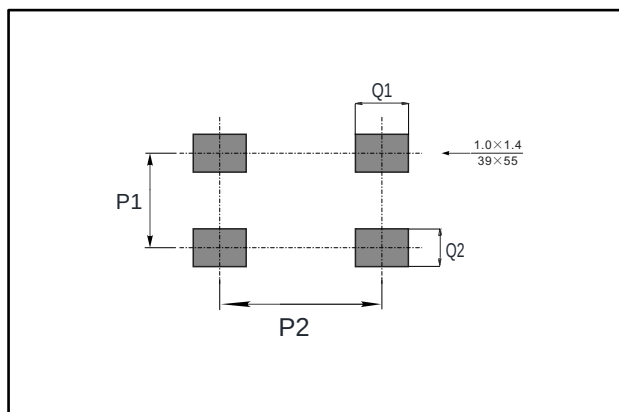


Fig.6- Typical Transient Thermal Impedance



The curve above is for reference only.

Suggested Pad Layout



Dim	Min
P1	5.1
P2	7.1
Q1	1.8
Q2	1.3