



UM1B THRU UM10B

Voltage Range - 100 to 1000 Volts Current - 1.0 Ampere

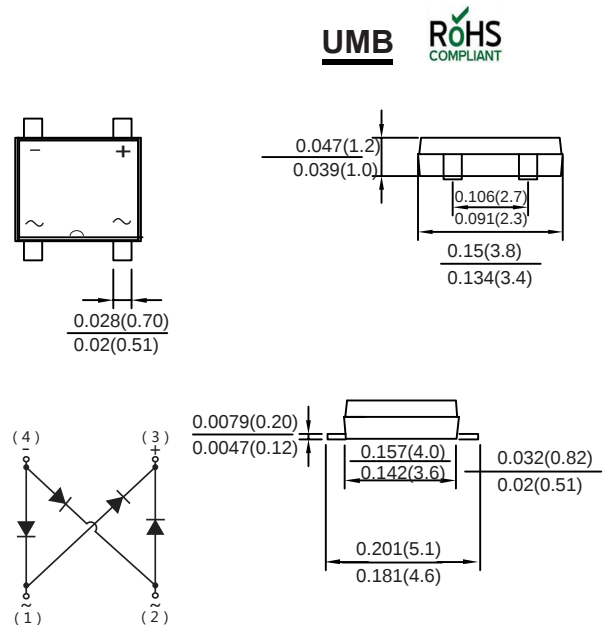
SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Features

- ◆ Glass passivated die construction Low
 - ◆ forward voltage drop
 - ◆ High current capability
 - ◆ High surge current capability
- Designed for surface mount application
Plastic material-UL flammability 94V-0

Mechanical Data

Case : JEDEC UMB molded plastic body
Terminals : Solderable per MIL-STD-750, Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.0016 ounce, 0.45 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 UM1B	MDD UM2B	MDD UM4B	MDD UM6B	MDD UM8B	MDD UM10B	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 $T_c = 115^\circ\text{C}$	I_O	1						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	35						A
Maximum Forward Voltage at 1.0A	V_F	1.1						V
Maximum DC Reverse Current @ $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_a = 125^\circ\text{C}$	I_R	5 40						μA
Typical Junction Capacitance (Note3)	C_j	13						pF
Typical Thermal Resistance	$R_{\theta JA}$	85						$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						$^\circ\text{C}$

NOTES:1. On glass epoxy P.C.B. mounted on 0.05x0.05"(1.3x1.3mm) pads
2. On aluminum substrate P.C.B. with on area of 0.8"x0.8"(20x20mm) mounted on 0.05x0.05"(1.3x1.3mm) solder pad
3. Measured at 1.0MHz and applied reverse voltage of 4.0 volts.



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Typical Characteristics

Fig.1 Average Rectified Output Current Derating Curve

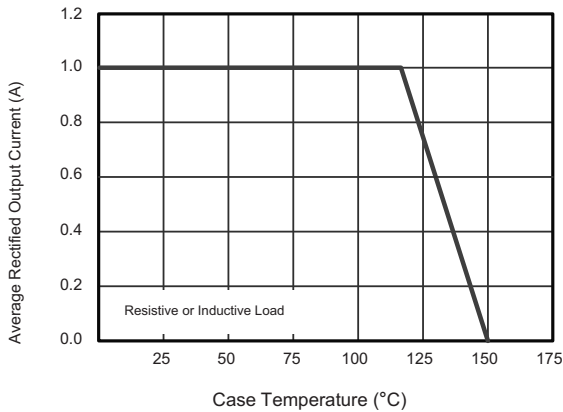


Fig.2 Typical Reverse Characteristics

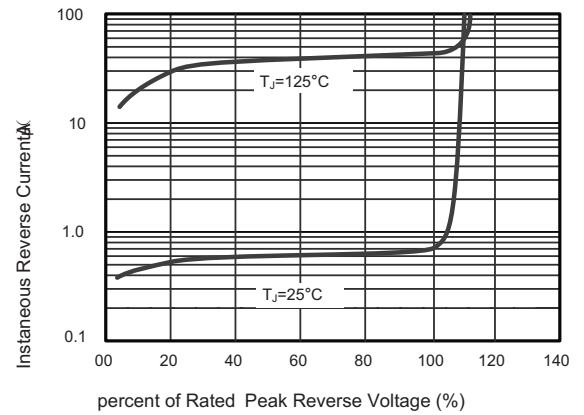


Fig.3 Typical Instantaneous Forward Characteristics $T_J = 25^\circ$

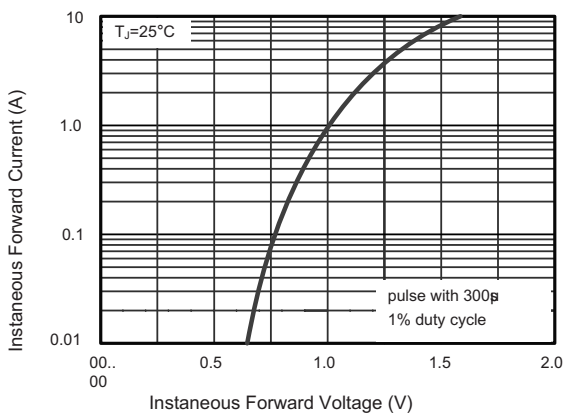


Fig.4 Typical Junction Capacitance

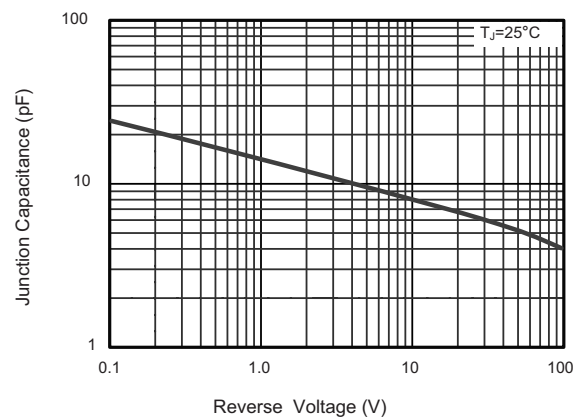
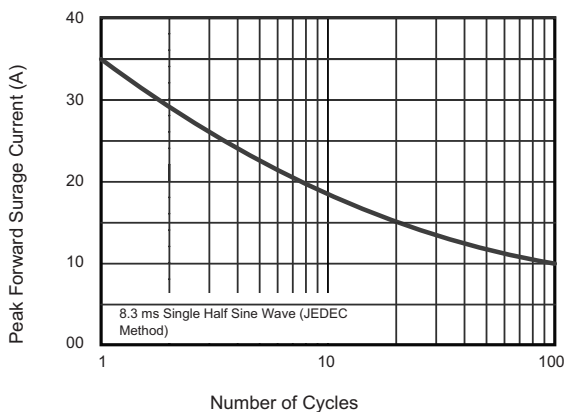


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



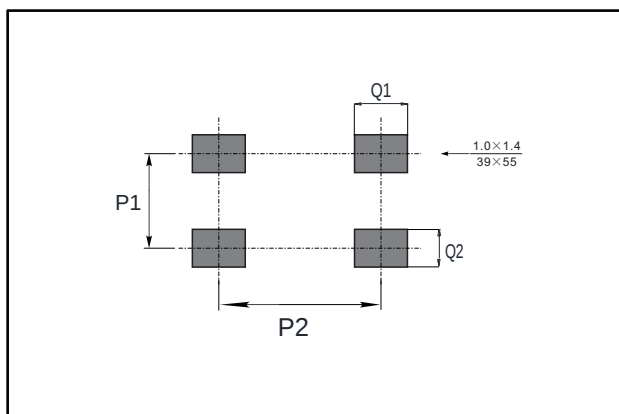
The curve above is for reference only.



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Suggested Pad Layout



Dim	Min
P1	2.5
P2	4.3
Q1	1.4
Q2	1.0