

Surface Mount Glass Passivated Bridge Rectifier

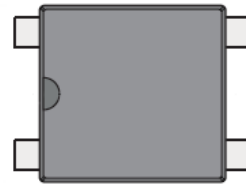
UM1B~UM10B
1.0A
100 to 1000V
UMB

Features

- u Glass Passivated Chip Junction
- u Reverse Voltage: 100 to 1000 V
- u Average Rectified Output Current: 1.0A
- u High Surge Current Capability
- u Designed for Surface Mount Application

Mechanical Data

- u Case: UMB
- u Terminals: Solderable per MIL-STD-750, Method 2026
- u Approx. Weight: 45mg; 0.0016oz


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Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	Symbol	UM1B	UM2B	UM4B	UM6B	UM8B	UM10B	Unit
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 1.0 A	V_F	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5						μA
		40						
Typical Junction Capacitance (Note 1)	C_J	13						pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	85						$^\circ\text{C}/\text{W}$
	$R_{\theta JC}$	25						
Operating and Storage Temperature Range	T_J, T_{STG}	-55 ~ +150						$^\circ\text{C}$

Notes:

1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. P.C.B. mounted with 4×1.5"×1.5" (3.81×3.81 cm) copper pad areas.

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Characteristic Curves

Fig1. Average Rectified Output Current Derating Curve

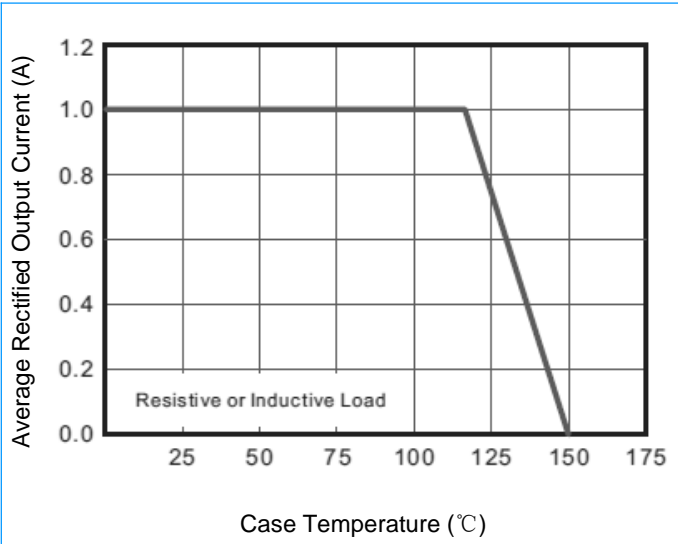


Fig2. Typical Reverse Characteristics

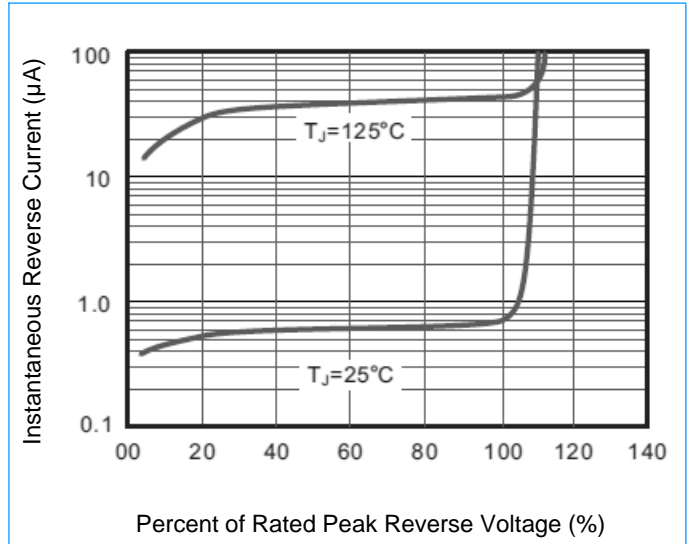


Fig3. Typical instantaneous Forward Characteristics

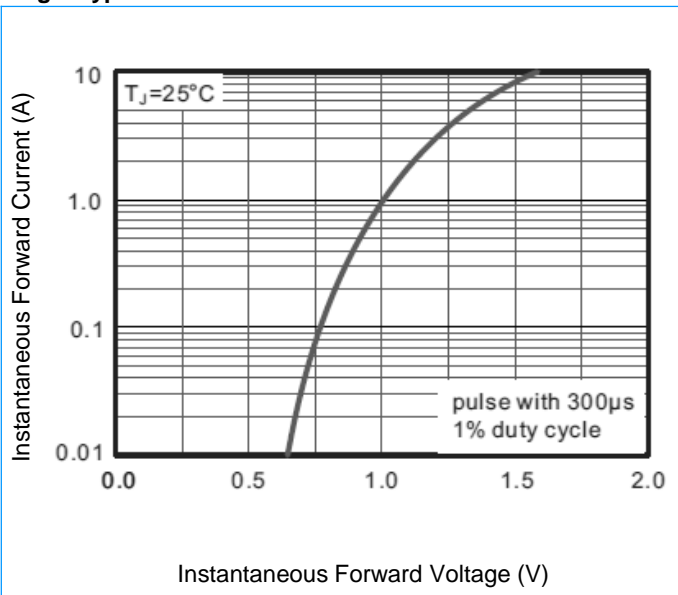
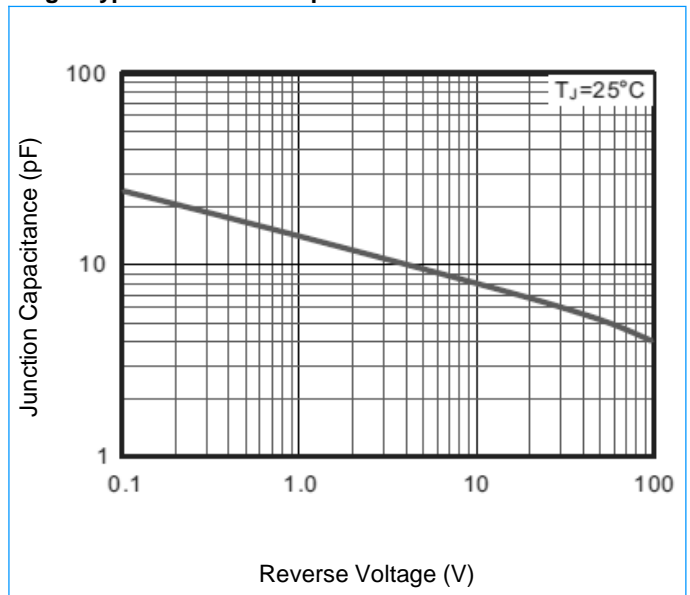


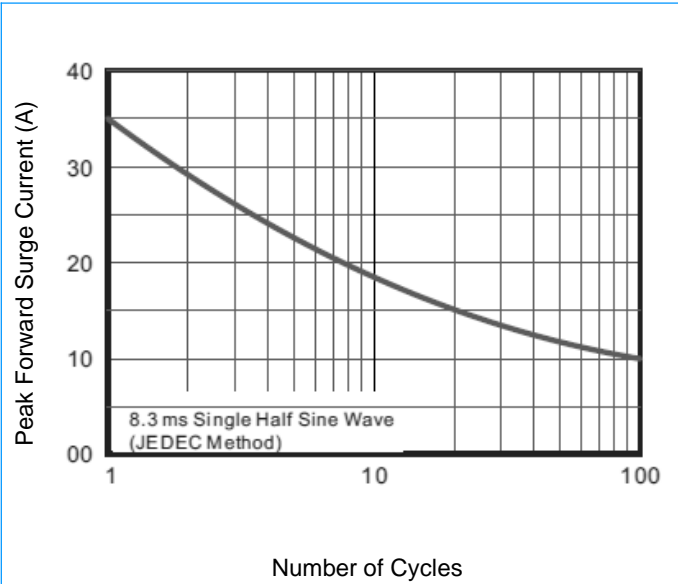
Fig4. Typical Junction Capacitance



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Characteristic Curves (Continue)

Fig5. Maximum Non-Repetitive Peak Forward Surge Current


UMB Package Outline and Mechanical Data

