

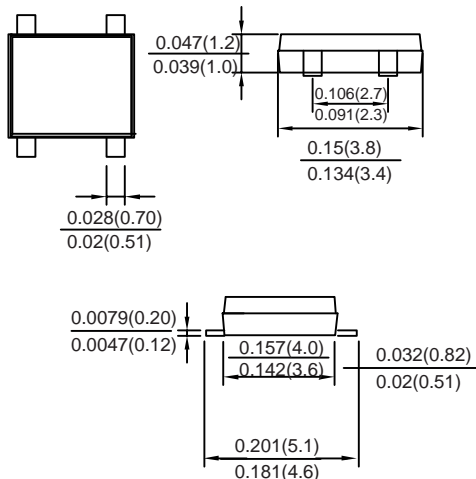


UM1B-10 THRU UM10B-10

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

Voltage Range - 100 to 1000 Volts Current - 1.0 Ampere

UMB



Dimensions in inches and (millimeters)

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: UMB, molded plastic

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on case

Mounting Position: 45mg 0.0016oz

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 derate current by 20%.

MDD Catalog Number	SYMBOLS	UM1B-10	UM2B-10	UM4B-10	UM6B-10	UM8B-10	UM10B-10	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at $T_c=115^\circ\text{C}$	$I_{F(AV)}$	1.0						Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	35						Amps
Maximum instantaneous forward voltage drop per leg at 0.5A	V_F	1.1						Volts
Maximum DC reverse current $T_J=25^\circ\text{C}$ at rated DC blocking voltage $T_J=125^\circ\text{C}$	I_R	5.0 40						μA μA
Typical junction capacitance per leg (Note3)	C_J	13						pF
Typical thermal resistance per leg	$R(\theta)_{JA}$	85						$^\circ\text{C}/\text{W}$
Operating temperature range	T_J	-55 to +150						$^\circ\text{C}$
storage temperature range	T_{STG}	-55 to +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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RATINGS AND CHARACTERISTIC CURVES UM1B-10 THRU UM10B-10

Fig.1 Average Rectified Output Current Derating Curve

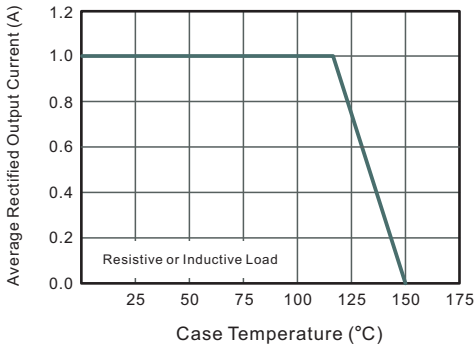


Fig.2 Typical Reverse Characteristics

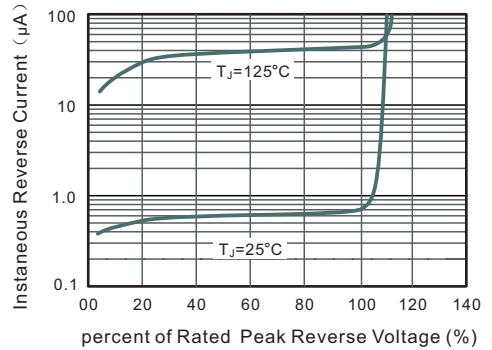


Fig.3 Typical Instantaneous Forward Characteristics

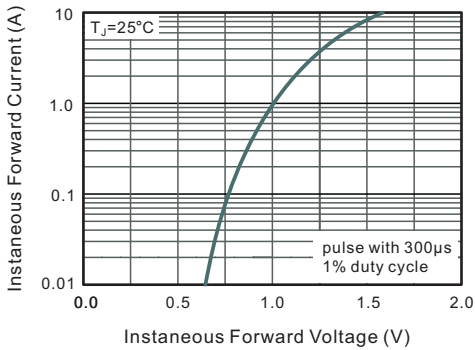


Fig.4 Typical Junction Capacitance

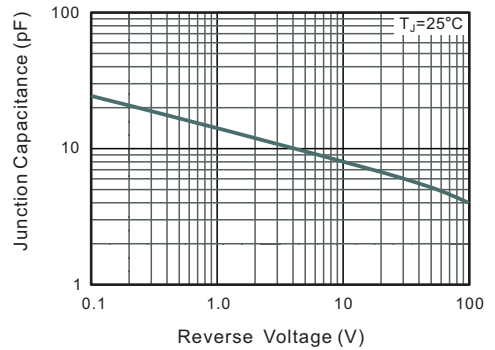
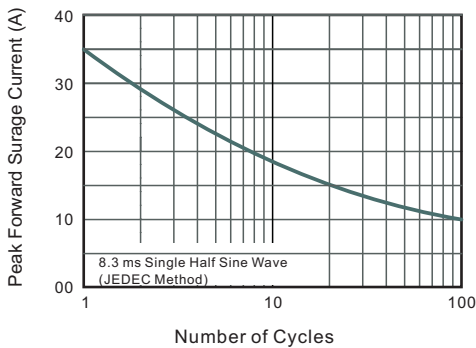


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考!)

