

UM05B THRU UM10B



Glass Passivated Bridge Rectifiers

Reverse Voltage: 50 to 1000 Volts

Forward Current: 0.8 Ampere

RoHS Device



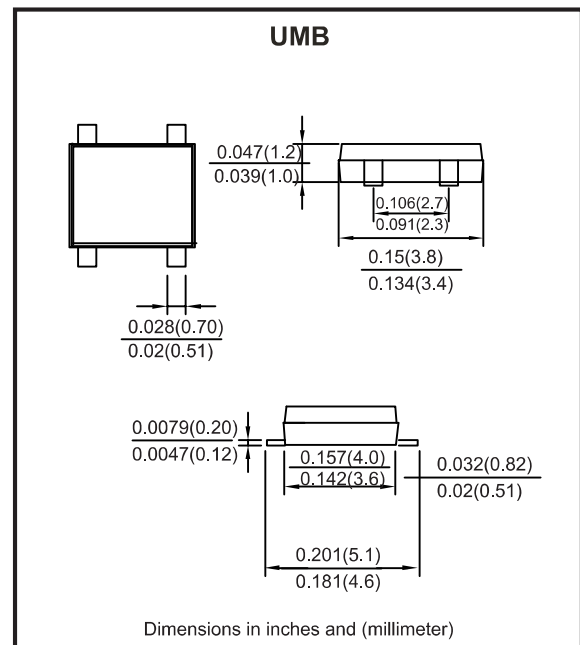
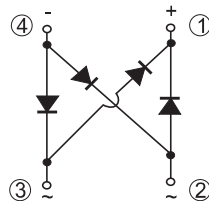
Features

- Rating to 1000V PRV.
- Ideal for printed circuit board.
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product.
- Pb free product.

Mechanical data

- Polarity: Symbol molded on body.
- Weight: 0.125 grams.
- Mounting position: Any.

Circuit Diagram



Maximum Rating And Electrical Characteristics

Rating at $T_A=25^{\circ}\text{C}$, unless otherwise noted.

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

Parameter		Symbol	UM05B	UM1B	UM2B	UM4B	UM6B	UM8B	UM10B	Unit
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current (Note 1) @T _A =125°C		I _(AV)	0.8							A
Peak Forward Surge Current, 8.3mS single half sine-wave, superimposed on rated load (JEDEC Method)		I _{FSM}	25							A
Peak Forward Voltage at 0.8A DC		V _F	1.1							V
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =125°C		I _R	3.0 30							μA
Typical Junction Capacitance per element (Note 2)		C _J	13							pF
Typical Thermal Resistance	Junction to ambient	R _{θJA}	110							°C/W
	Junction to case	R _{θJC}	60							
Operating Temperature Range		T _J	-55 to +150							°C
Storage Temperature Range		T _{STG}	-55 to +150							°C

Notes: 1. Mounted on P.C. Board.

2. Measured at 1.0MHz and applied reverse voltage of 4V DC.

Company reserves the right to improve product design , functions and reliability without notice.

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Rating and Characteristic Curves

Fig.1 - Forward Current Derating Curve

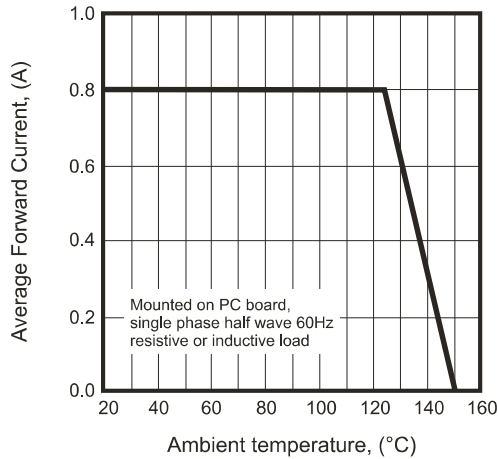


Fig.2 - Maximum Non-Repetitive Surge Current

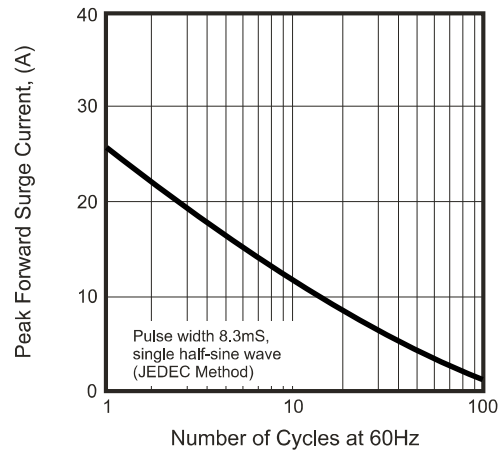


Fig.3 - Typical Reverse Characteristics

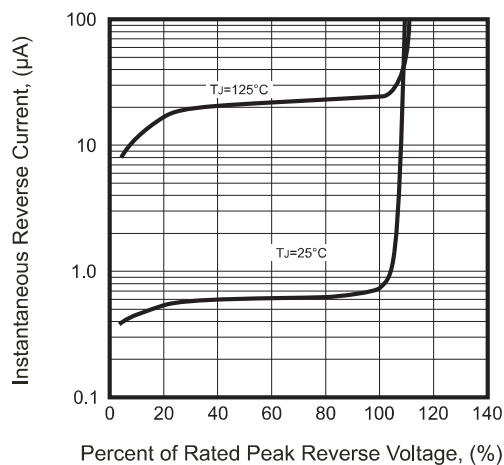


Fig.4 - Typical Forward Characteristics

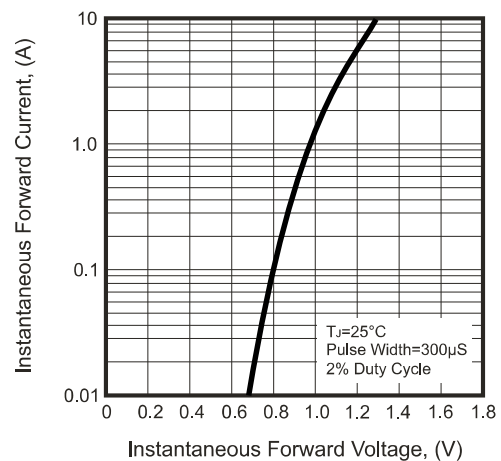
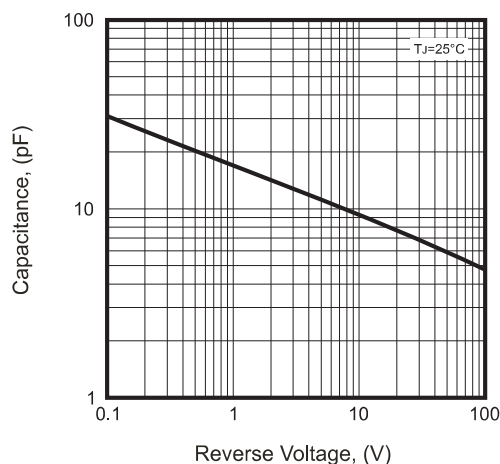


Fig.5 - Typical Junction Capacitance

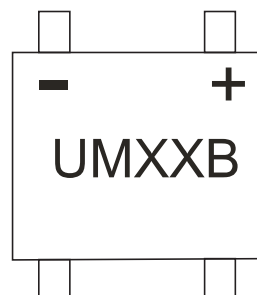


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Marking Code

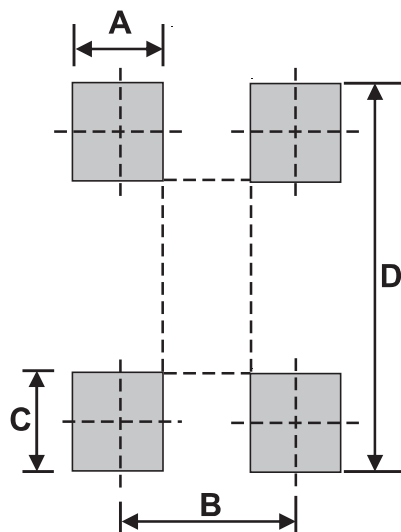
Part Number	Marking code
UM05B	UM05B
UM1B	UM1B
UM2B	UM2B
UM4B	UM4B
UM6B	UM6B
UM8B	UM8B
UM10B	UM10B



X/XX = Product type marking code

Suggested PAD Layout

SIZE	UMB	
	(mm)	(inch)
A	0.07MIN	0.0276MIN
B	2.50REF	0.098REF
C	0.82MIN	0.032MIN
D	5.10MAX	0.201MAX



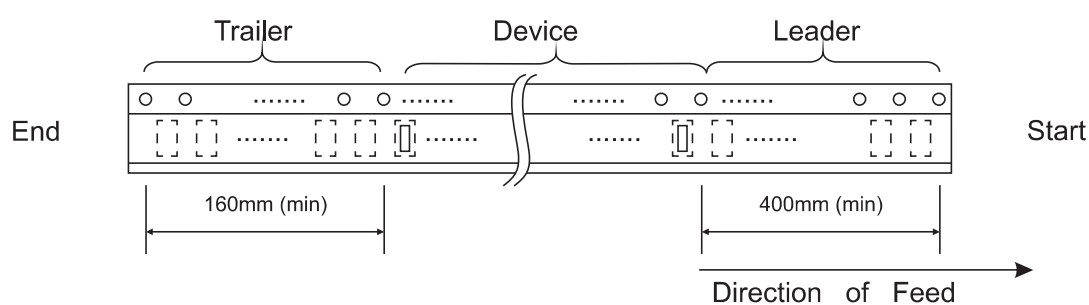
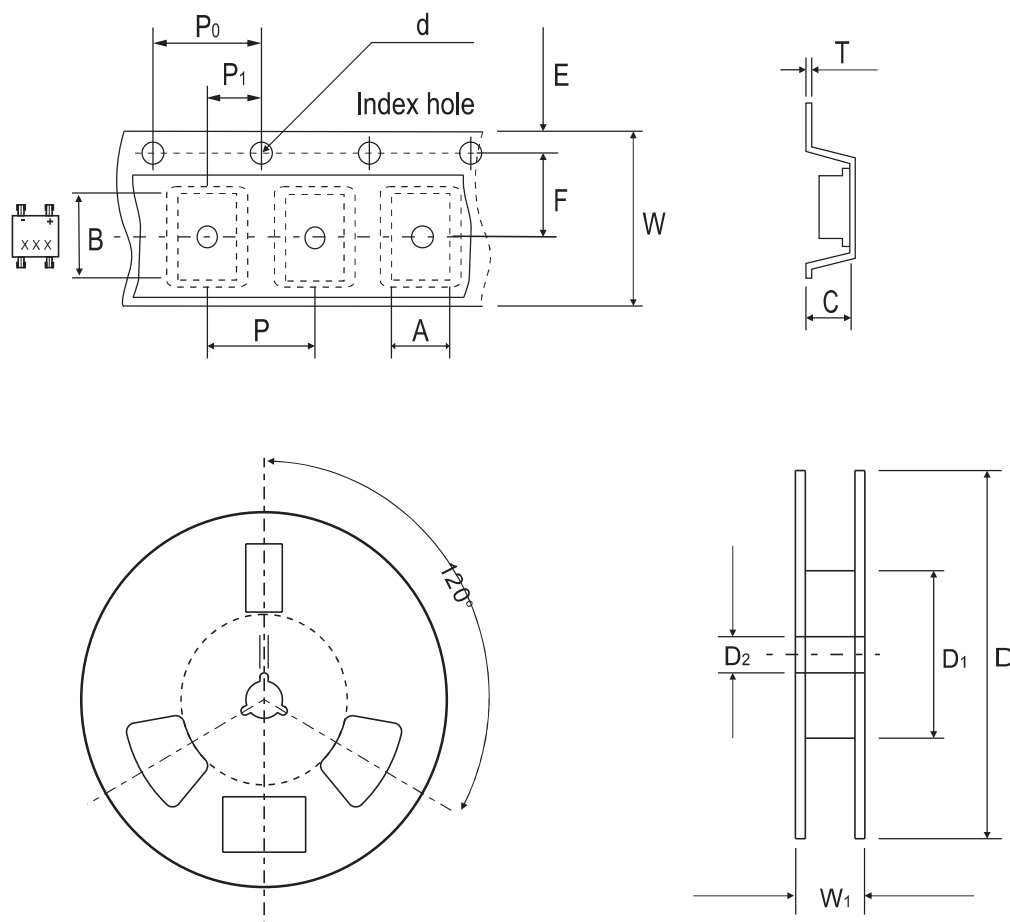
Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
UMB	4,000	11

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Reel Taping Specification



UMB	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	4.90 ± 0.10	7.24 ± 0.10	3.33 ± 0.10	1.55 ± 0.05	280	50.0 MIN.	13.00 ± 0.20
	(inch)	0.193 ± 0.004	0.285 ± 0.004	0.131 ± 0.004	0.061 ± 0.002	11	1.969 MIN.	0.512 ± 0.008

UMB	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.30	12.00 ± 0.30	12.00~14.40
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.012	0.472 ± 0.012	0.472~0.657

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