UM1B THRU UM10B
UMB05F THRU UMB10F

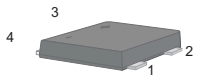
0.6A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

FEATURES:

Glass Passivated Chip Junction
Reverse Voltage - 100 to 1000 V
Average Rectified Output Current- 0.6 A
High Surge Current Capability
Designed for Surface Mount Application

PINNING

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)



UMBF Package

MECHANICAL DATA

- Case: UMBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 45mg/0.0016oz

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	Symbols	UMB05F UM1B	UMB1F UM2B	UMB2F UM2B	UMB4F UM4B	UMB6F UM6B	UMB8F UM8B	UMB10F UM10B	Units
Maximum Repetitive 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
Average Rectified Output Current at T_c = 115 °C	I_O	0.6							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	20							A
Forward Voltage per element @I_F=0.6A	V_F	1.1							V
Maximum DC Reverse Current @T_a=25 °C at Rated DC Blocking Voltage @T_a=125 °C	I_R	5 100							μA
Typical Junction Capacitance (Note1)	C_j	13							pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	110							°C/W
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. P.C.B. mounted with 4×1.5"×1.5" (3.81×3.81 cm) copper pad areas.

Ratings And Characteristic Curves

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Fig.1 Average Rectified Output Current Derating Curve

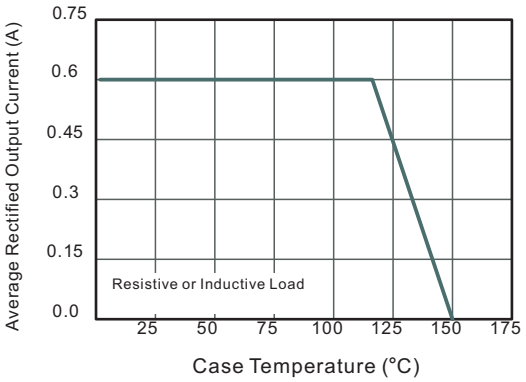


Fig.2 Typical Reverse Characteristics

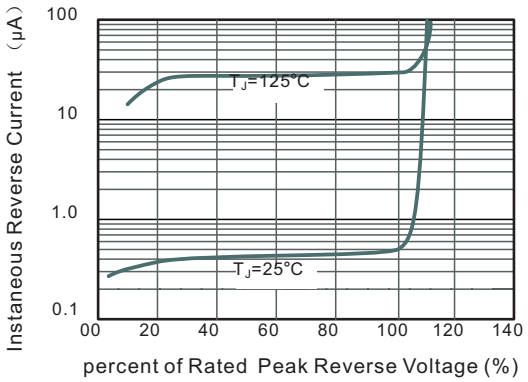


Fig.3 Typical Instaneous Forward Characteristics

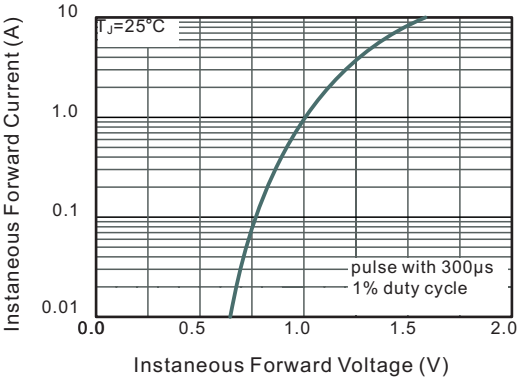


Fig.4 Typical Junction Capacitance

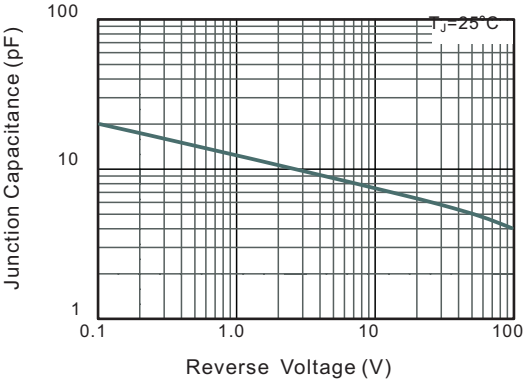
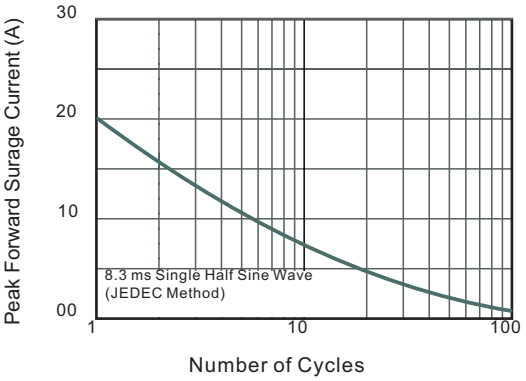


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



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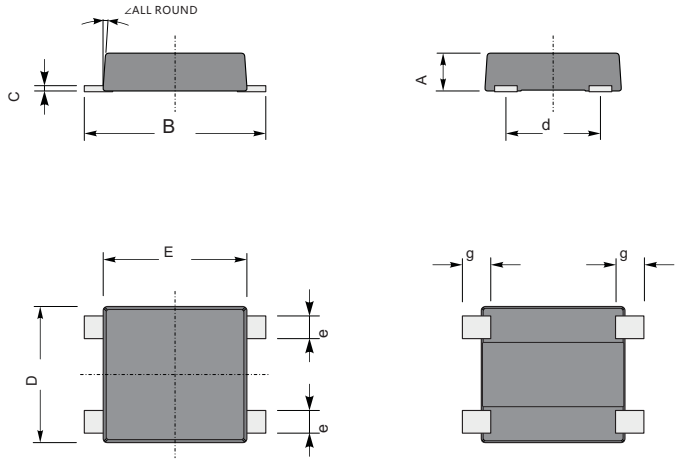
PACKAGE OUTLINE

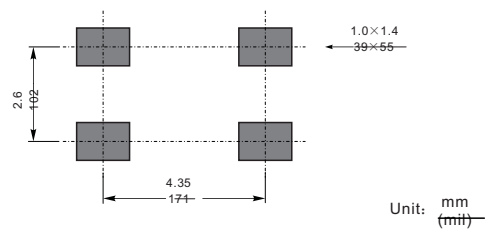
Plastic surface mounted package; 4 leads



UMB mechanical data

UNIT		A	C	D	E	B	g	d	e	∠
mm	max	1.4	0.3	4.05	3.9	5.2	0.95	2.8	0.9	5°
	min	1.0	0.1	3.65	3.5	4.8	0.55	2.4	0.5	
mil	max	55.1	11.8	159	153	204	37	110	35.4	
	min	39.3	3.9	143	137	189	21	94	19.6	

The recommended mounting pad size



Marking

Type number	Marking code
UMB05F	B1
UMB1F	B2
UMB2F	B3
UMB4F	B4
UMB6F	B5
UMB8F	B6
UMB10F	B7