

**UMB10F****SURFACE MOUNT BRIDGE RECTIFIERS****FEATURES:**

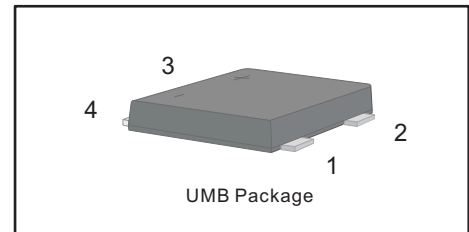
Glass Passivated Chip Junction
Reverse Voltage - 1000 V
Average Rectified Output Current- 0.5 A
High Surge Current Capability
Designed for Surface Mount Application

MECHANICAL DATA

- Case: UMB or SOF2-4F
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 45mg 0.0016oz

PINNING

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

**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	UMB10F	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Average Rectified Output Current at $T_c = 125\text{ }^{\circ}\text{C}$	I_o	0.5	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	25	A
Forward Voltage per element at $I_F = 0.5\text{ A}$	V_F	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_a = 25\text{ }^{\circ}\text{C}$ @ $T_a = 125\text{ }^{\circ}\text{C}$	I_R	3 30	μA
Typical Junction Capacitance (Note1)	C_j	9	pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	135	$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^{\circ}\text{C}$

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.



UMB10F

SURFACE MOUNT BRIDGE RECTIFIERS

Characteristic Curves ($T_A=25\text{ }^{\circ}\text{C}$ unless otherwise noted)

Fig.1 Average Rectified Output Current Derating Curve

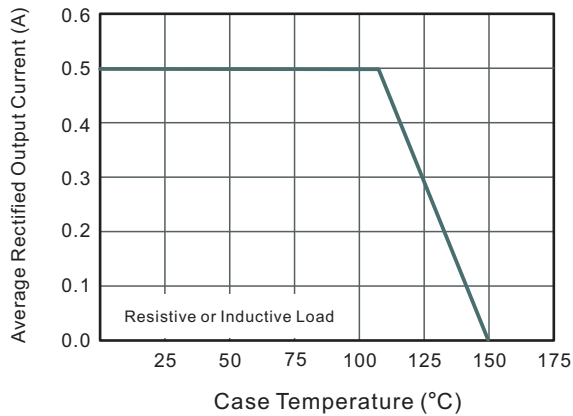


Fig.2 Typical Reverse Characteristics

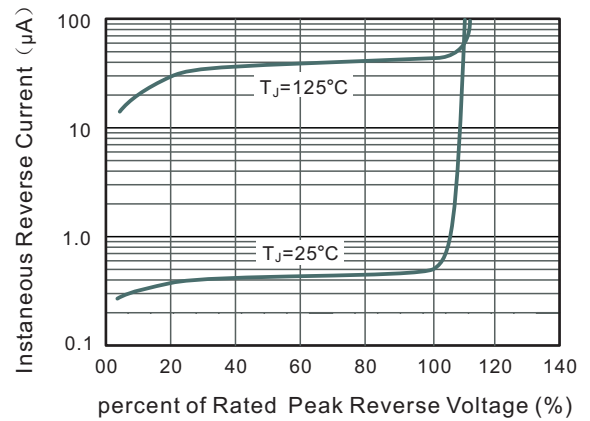


Fig.3 Typical Instantaneous Forward Characteristics

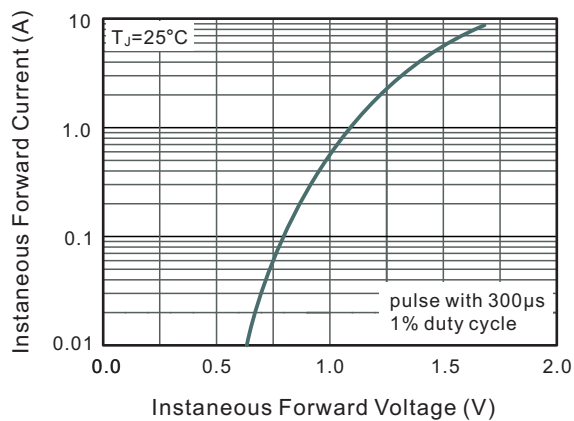


Fig.4 Typical Junction Capacitance

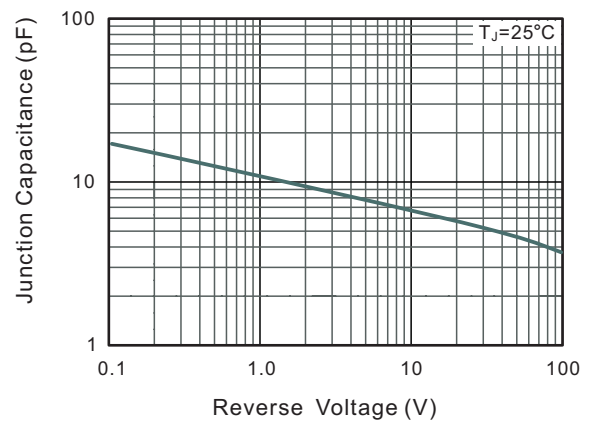
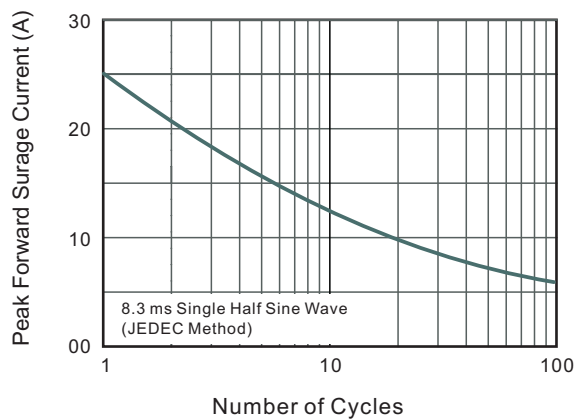


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current





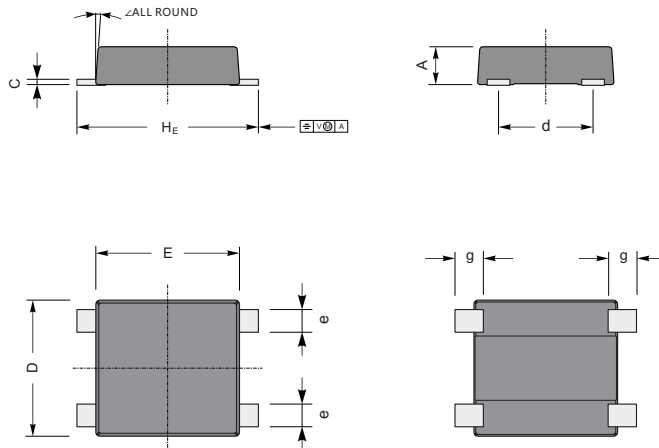
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PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

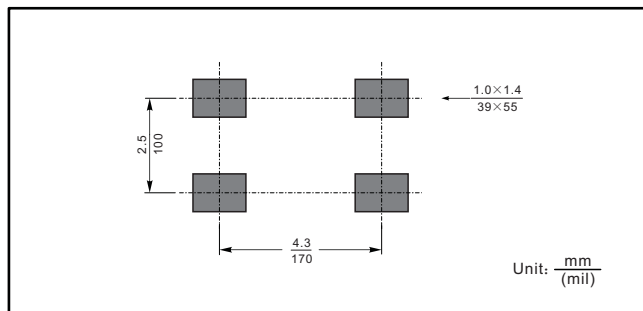
UMB



UMB mechanical data

UNIT		A	C	D	E	H _E	g	d	e	∠
mm	max	1.3	0.20	3.8	4.0	5.1	0.82	2.7	0.70	7°
	min	1.0	0.12	3.4	3.6	4.6	0.51	2.3	0.51	
mil	max	51	7.9	150	157	201	32	106	28	
	min	39	4.7	134	142	181	20	91	20	

The recommended mounting pad size



Marking

Type number	Marking code
UMB10F	B7