

## 1A SURFACE MOUNT SCHOTTKY BRIDGE

### FEATURES:

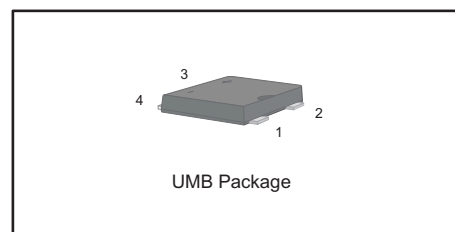
Reverse Voltage - 40 to 200 V  
Forward Current - 1 A  
High Surge Current Capability  
Designed for Surface Mount Application

### MECHANICAL DATA

- Case: UMB
- 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	UMB14	UMB16	UMB18	UMB110	UMB115	UMB120	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	60	80	100	150	200	V
Maximum RMS voltage	$V_{RMS}$	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current @ Fig.1	$I_{F(AV)}$	1.0						A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	40		30				A
Peak Forward Surge Current,1.0ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	80		60				A
$I^2t$ Rating for fusing ( $t \leq 8.3ms$ )	$I^2t$	6.6		3.7				A <sup>2</sup> S
Max Instantaneous Forward Voltage at 1 A	$V_F$	0.55	0.70	0.85		0.90		V
Maximum DC Reverse Current at Rated DC Reverse Voltage	$I_R$	0.3 10		0.2 5		0.1 2		mA
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	93	70	55		40	35	pF
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	45 15 25				°C/W		
Operating Junction Temperature Range	$T_j$	-55 ~ +125						°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150						°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.



Fig.1 Average Rectified Output Current Derating Curve

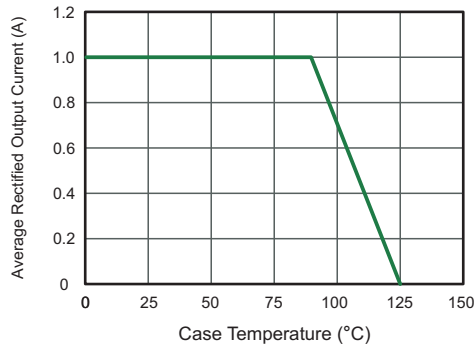


Fig.2 Typical Reverse Characteristics

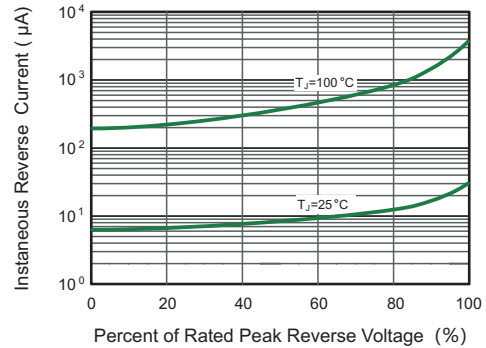


Fig.3 Typical Forward Characteristic

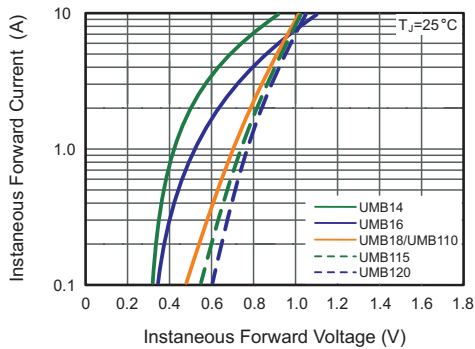


Fig.4 Typical Junction Capacitance

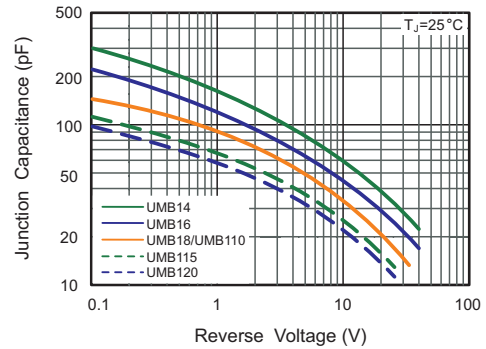
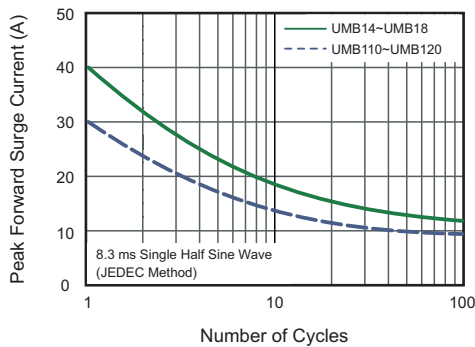


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

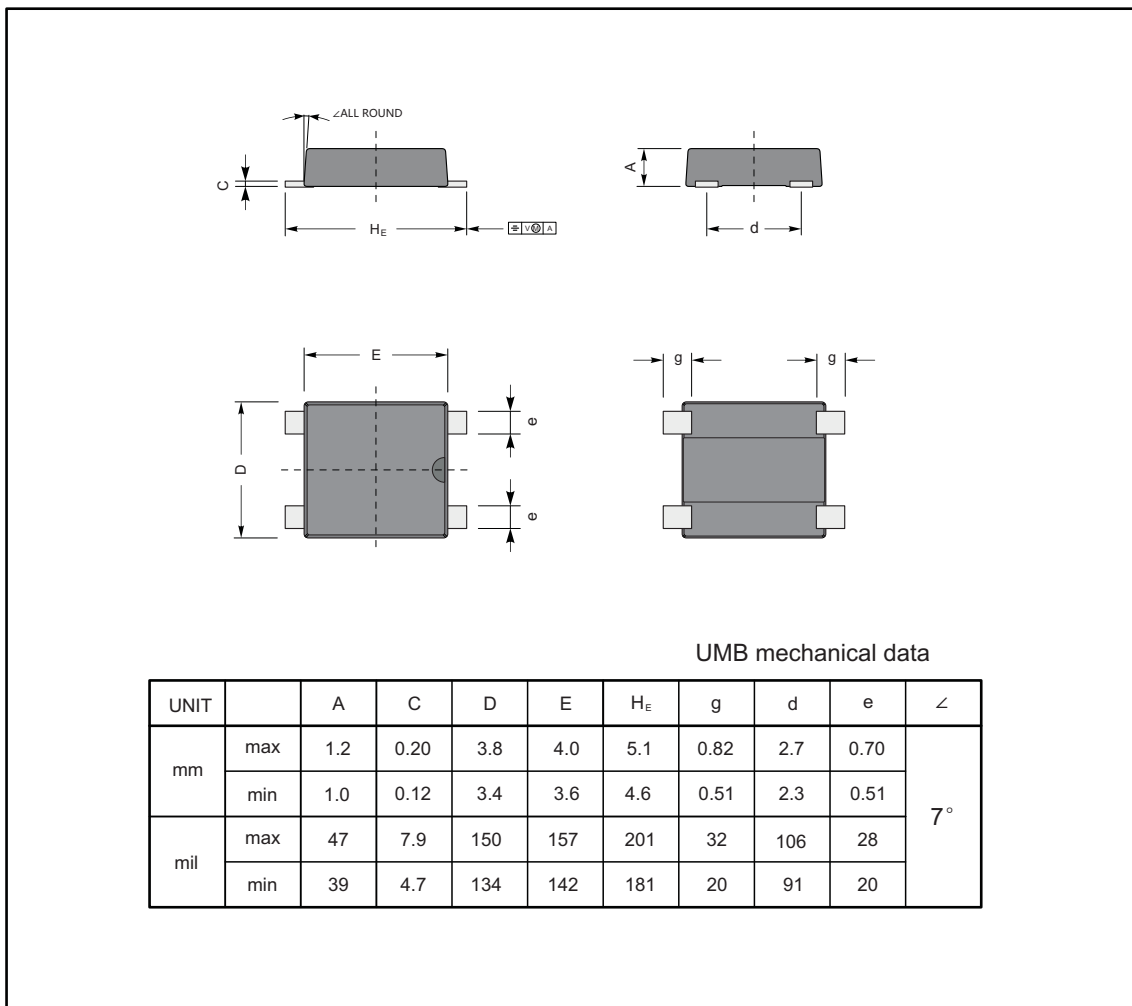




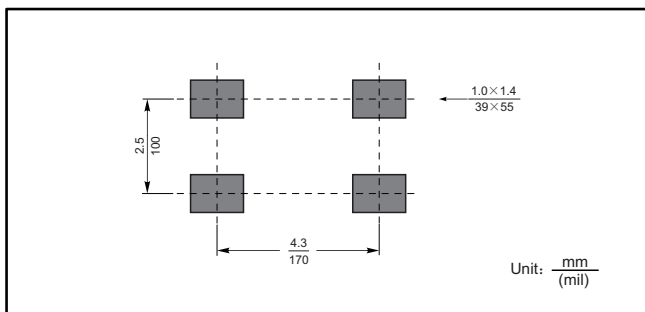
## PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

UMB



### The recommended mounting pad size



### Marking

Type number	Marking code
UMB14	MB14
UMB16	MB16
UMB18	MB18
UMB110	MB110
UMB115	MB115
UMB120	MB120



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