



LUM1B THRU LUM10B

1A Surface Mount Glass Passivated Bridge Rectifier

Features

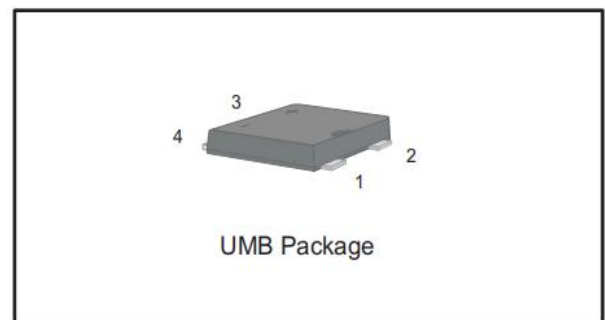
- Glass Passivated Chip Junction
- Reverse Voltage -100 to 1000V
- Average Rectified Output Current -1A
- High Surge Current Capability
- Designed for Surface Mount Application

Marking

Type number	Marking code
LUM1B	UM1B
LUM2B	UM2B
LUM4B	UM4B
LUM6B	UM6B
LUM8B	UM8B
LUM10B	10U10

PINNING

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



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

Parameter		Symbol	LUM 1B	LUM 2B	LUM 4B	LUM 6B	LUM 8B	LUM 10B	Units
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	100	200	400	600	800	1000	V
Maximum RMS Voltage		V _{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		V _{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current@Fig.1		I _O	1.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimpose on Rated Load(JEDEC Method)		I _{FSM}	35						A
Peak Forward Surge Current 1.0 ms Single Half Sine Wave Superimpose on Rated Load(JEDEC Method)		I _{FSM}	70						A
I²t Rating for fusing(3ms≤t≤8.3ms)		I²t	5.1						A²S
Maximum Forward Voltage at 1A		V _F	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A = 25°C	I _R	5						μA
	T _A = 125°C		100						μA
Typical Junction Capacitance ⁽¹⁾		C _J	7						pF
Typical Thermal Resistance ⁽²⁾		R _{θJA}	40						°C/W
		R _{θJC}	15						
		R _{θJL}	25						
Operating and Storage Temperature Range		T _J , T _{STG}	-55~+150						°C

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

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



LUM1B THRU LUM10B

Typical Characteristics

Fig.1 Average Rectified Output Current Derating Curve

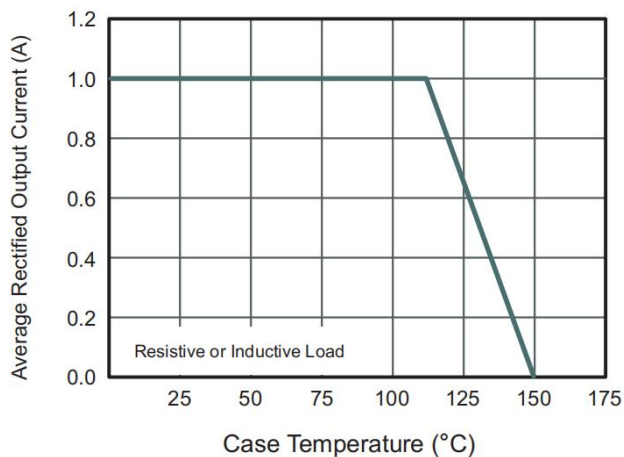


Fig.2 Typical Instantaneous Reverse Characteristics

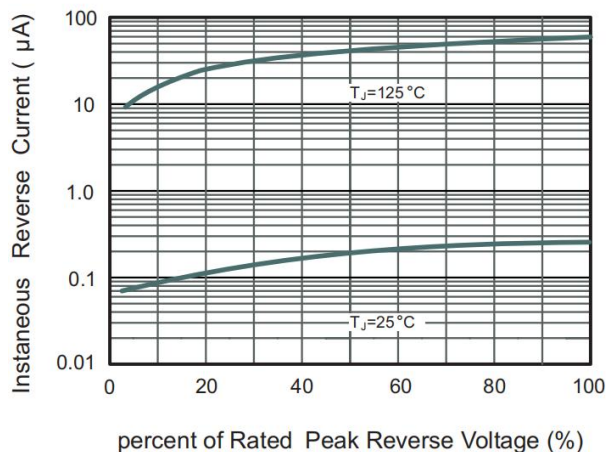


Fig.3 Typical Forward Characteristic

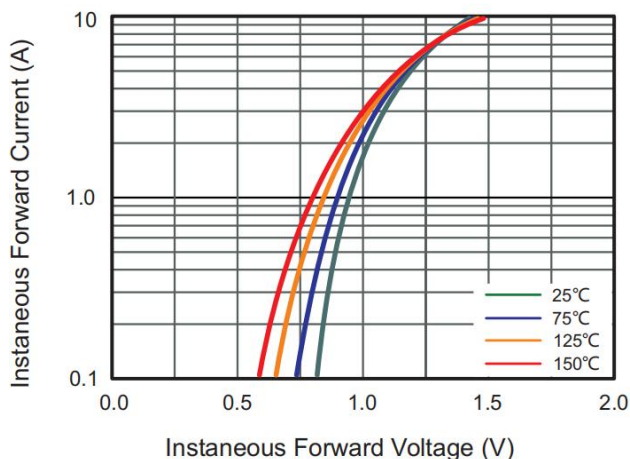


Fig.4 Typical Junction Capacitance

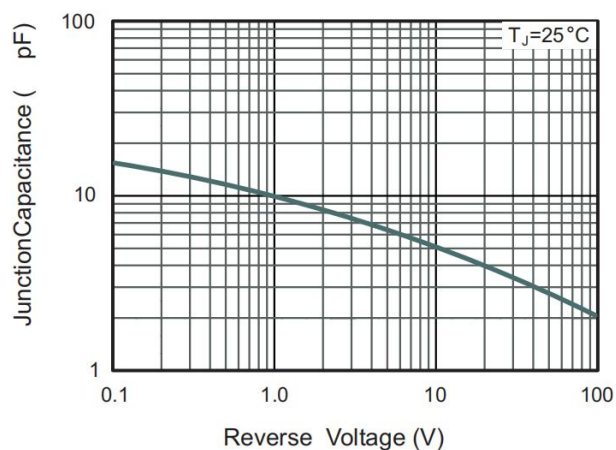
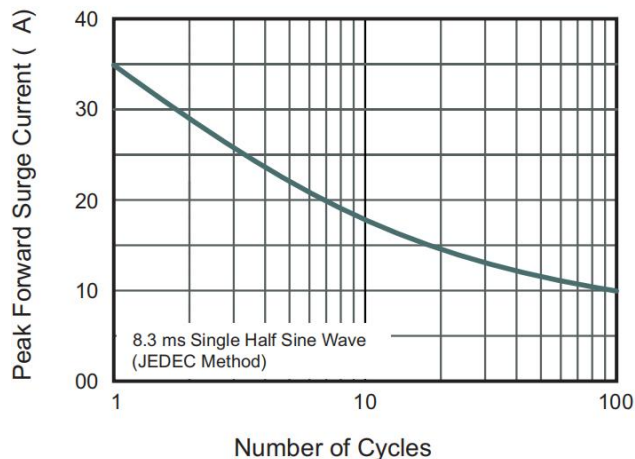


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



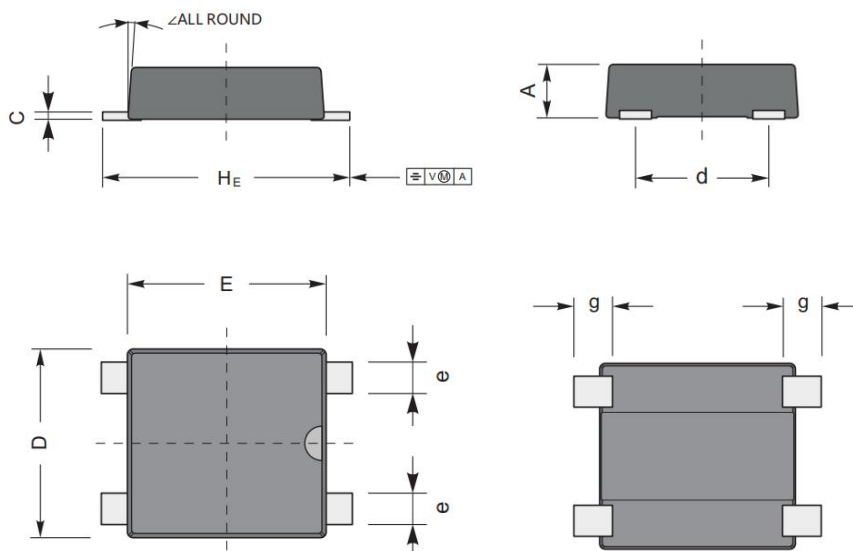


LUM1B THRU LUM10B

Package Information

UMB

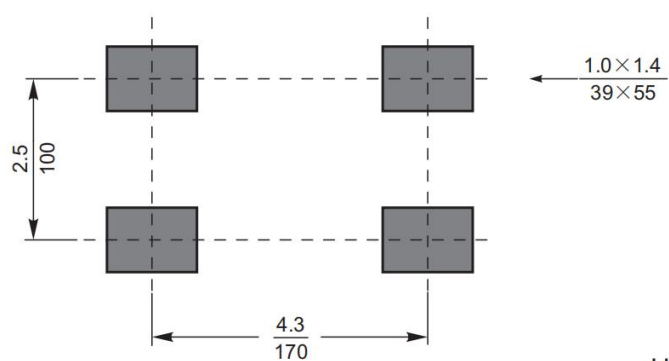
Dimensions in mm



UMB mechanical data

UNIT		A	C	D	E	H _E	g	d	e	∠
mm	max	1.2	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	47	7.9	150	157	201	32	106	28	
	min	39	4.7	134	142	181	20	91	20	

The recommended mounting pad size



Unit: $\frac{\text{mm}}{(\text{mil})}$



LUM1B THRU LUM10B

Shikues Disclaimer

1.Accuracy of Information and Right to Modify

The information provided in this document is for reference only. Shikues reserves the right to make changes to this document and to the specifications of the products described herein at any time, without prior notice, for the purpose of improving reliability, function, design, or for any other reason. It is the customer's responsibility to obtain and verify the latest product information and specifications before making any final design, procurement, or usage decisions.

2.No Warranty

Shikues makes no express or implied warranties, representations, or guarantees regarding the suitability of its products for any particular purpose.

Shikues assumes no liability for any assistance provided or for the design of customer products. All products are supplied "as is."

3.Intended Use and Limitation of Liability

The products described in this document are intended for use in general-purpose electronic devices. They are neither designed nor tested nor authorized for use in transportation equipment or applications requiring high reliability. Unless expressly authorized in writing by Shikues, these products must not be used as critical components in life-support systems or any applications where failure could directly pose a risk to human life (including, but not limited to, medical devices, transportation systems, aerospace equipment, nuclear facilities, and safety-critical systems).

Shikues assumes no responsibility or liability for any consequences arising from the use of its products in unauthorized or unintended applications.

Neither Shikues nor its representatives shall be held liable for any resulting damages.

4.Intellectual Property

This document does not grant any express or implied license—whether by estoppel, implication, or otherwise—to use any intellectual property rights of Shikues.