



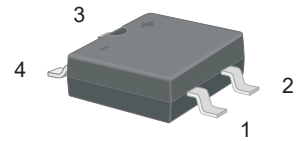
# MB1S-12~MB10S-12

## Surface Mount Glass Passivated Bridge Rectifiers

### Features

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

### MBS



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

### Marking Code:

- MB1S-12: 12S1  
 MB2S-12: 12S2  
 MB4S-12: 12S4  
 MB6S-12: 12S6  
 MB8S-12: 12S8  
 MB10S-12: 12S10

### 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	MB1S-12	MB2S-12	MB4S-12	MB6S-12	MB8S-12	MB10S-12	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
Maximum Average Rectified Output Current at $T_C = 125^\circ C$	$I_o$	1.2						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	40						A
Maximum Instantaneous Forward Voltage at 1.2 A	$V_F$	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A = 25^\circ C$ $T_A = 125^\circ C$	$I_R$	5 80						$\mu A$
Typical Junction Capacitance <sup>Note1</sup>	$C_j$	18						pF
Typical Thermal Resistance <sup>Note2</sup>	$R_{\theta JA}$ $R_{\theta JC}$	75 25						$^\circ C/W$
Junction Temperature	$T_J$	150						$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to +150						$^\circ C$

### Note:

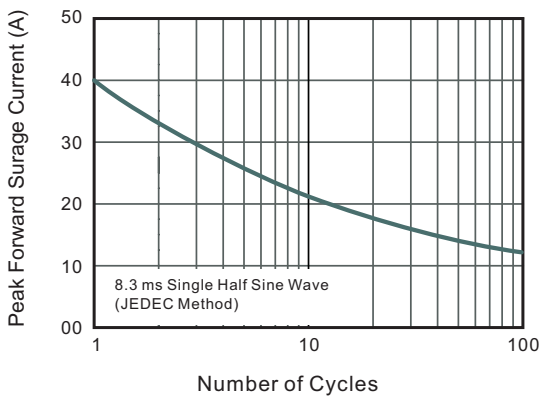
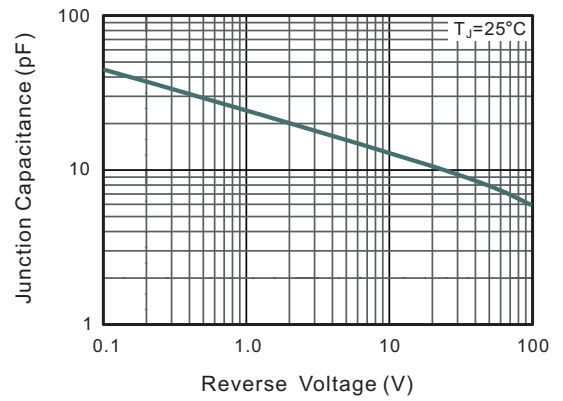
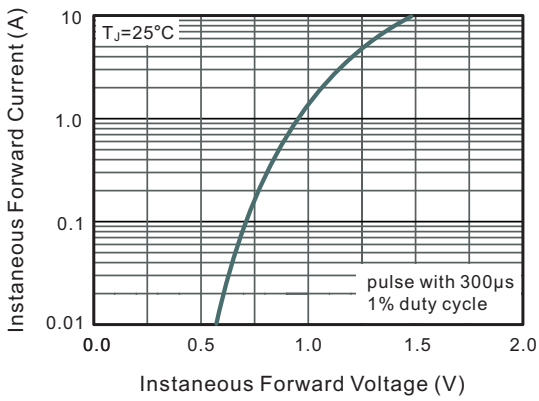
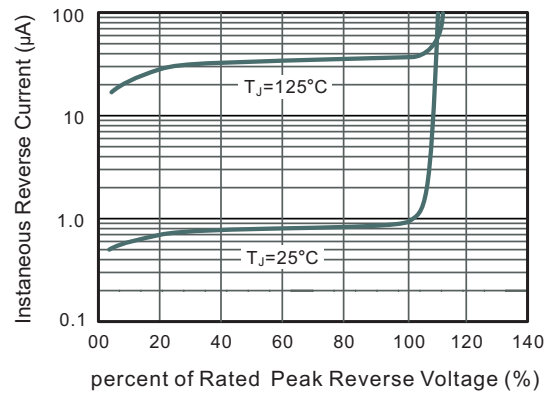
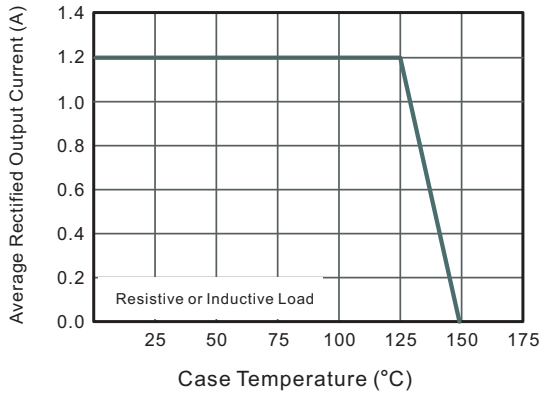
1. Measured at 1 MHz and applied reverse voltage of 4 V D.C
2. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.



# MB1S-12~MB10S-12

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### Typical Characteristic Curves





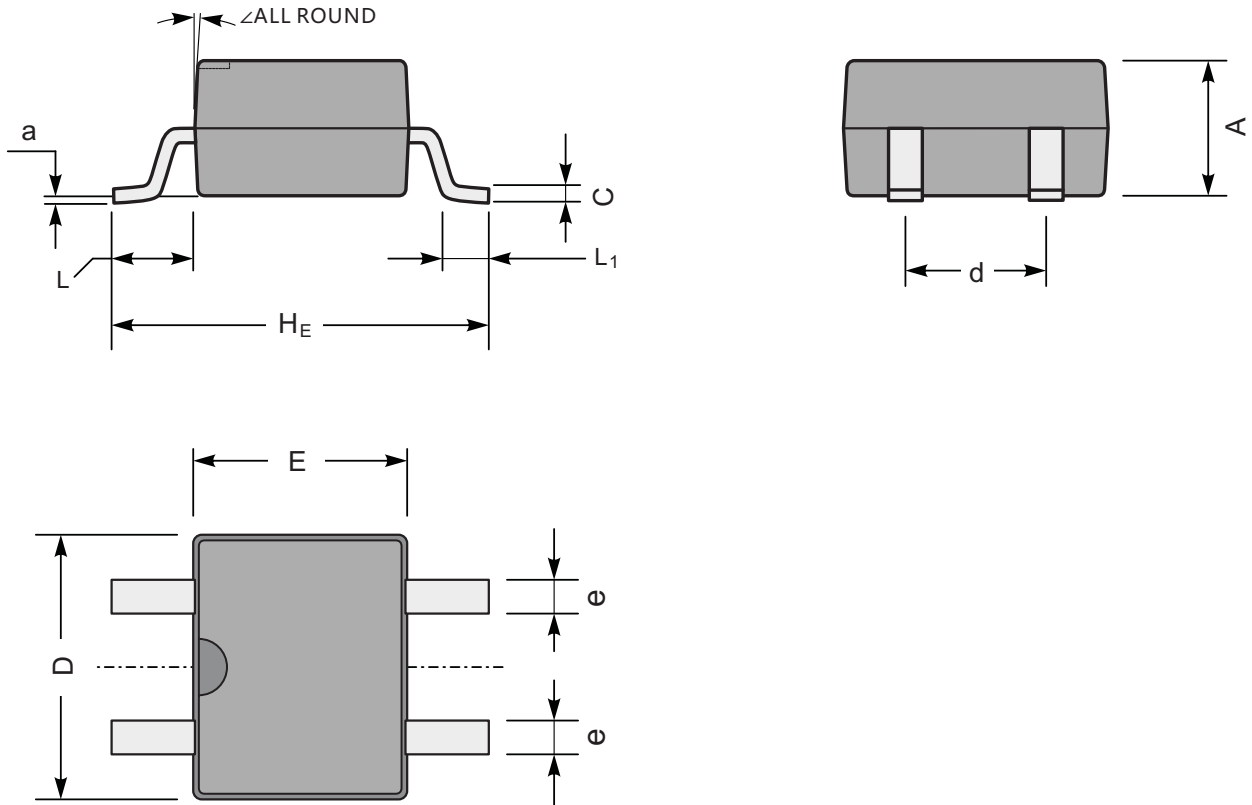
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### Package Outline

MBS

Dimensions in mm



MBS mechanical data

UNIT		A	C	D	E	H <sub>E</sub>	d	e	L	L <sub>1</sub>	a	∠
mm	max	2.6	0.22	5.0	4.1	7.0	2.7	0.7	1.7	1.1	0.2	7°
	min	2.2	0.15	4.5	3.6	6.4	2.3	0.5	1.3	0.5	—	
mil	max	102	8.7	197	161	276	106	28	67	43	8	
	min	94	5.9	177	142	252	91	20	51	20	—	