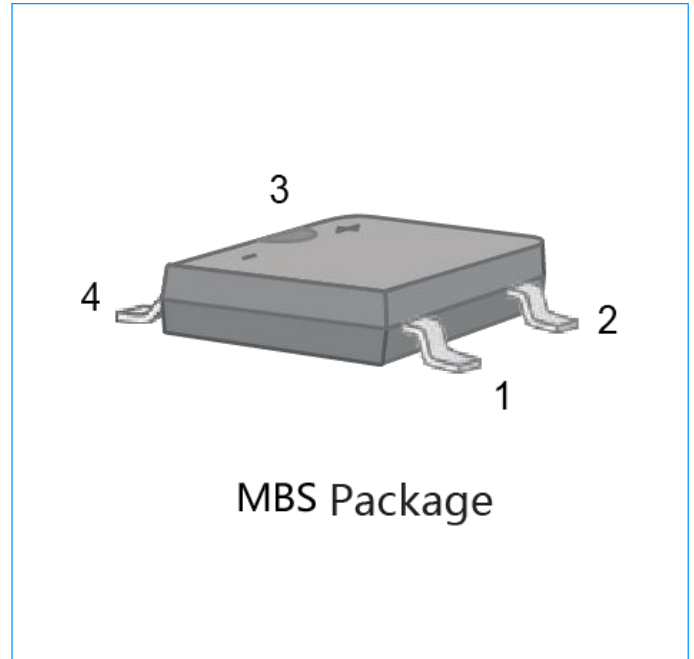


# 1A Surface Mount Glass Passivated Bridge Rectifier

## MBxxS-10 Series

### Features

- ◆ Glass Passivated Chip Junction.
- ◆ Reverse Voltage: 100 to 1000V.
- ◆ Forward Current: 1A.
- ◆ High Surge Current Capability.
- ◆ Designed for Surface Mount Application.



### Mechanical Data

- ◆ Case: MBS
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 100mg /0.0035oz

### Pinning

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

# 1A Surface Mount Glass Passivated Bridge Rectifier

## MBxxS-10 Series

### Maximum Ratings and Electrical Characteristics

Ratings 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	MB1S-10	MB2S-10	MB4S-10	MB6S-10	MB8S-10	MB10S-10	Unit	
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 at $T_a = 50^\circ\text{C}$	$I_o$	1.0						A	
Peak Forward Surge Current : 8.3ms Single Half Sinewave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	35						A	
Forward Voltage per Element @ $I_F = 1.0\text{A}$	$V_F$	1.1						V	
Maximum DC Reverse Current at Rated DC Blocking	$I_R$	$T_J = 25^\circ\text{C}$	5						$\mu\text{A}$
		$T_J = 100^\circ\text{C}$	40						
Typical Junction Capacitance (Note1)	$C_J$	13						pF	
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	85						$^\circ\text{C/W}$	
	$R_{\theta JL}$	30							
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150						$^\circ\text{C}$	

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

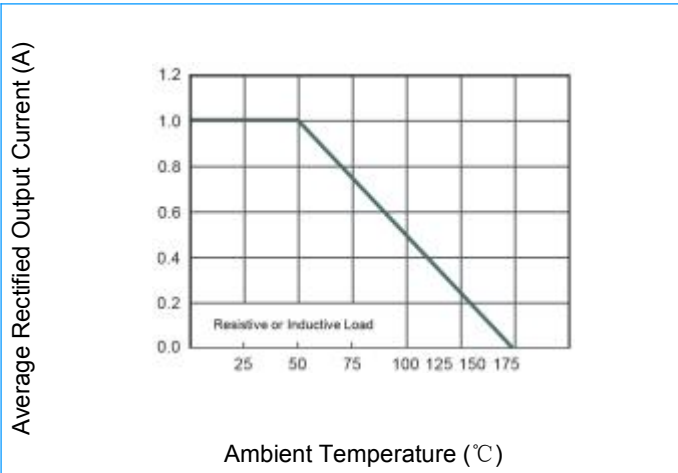
2. Mounted on glass epoxy PC board with 4×(5×5mm<sup>2</sup>) copper pad..

# 1A Surface Mount Glass Passivated Bridge Rectifier

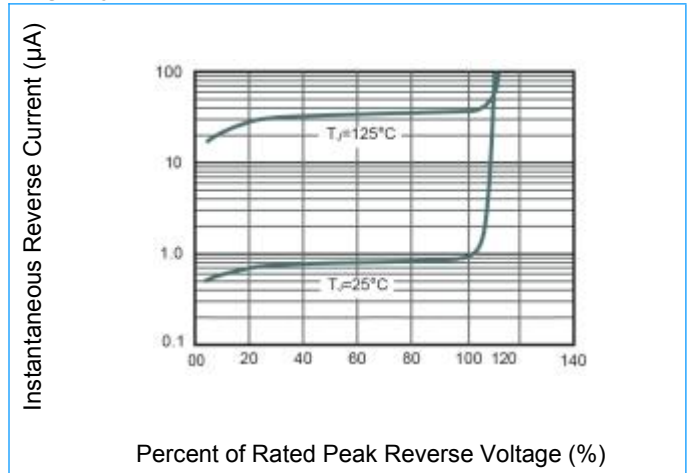
## MBxxS-10 Series

### Rating and Characteristic Curves

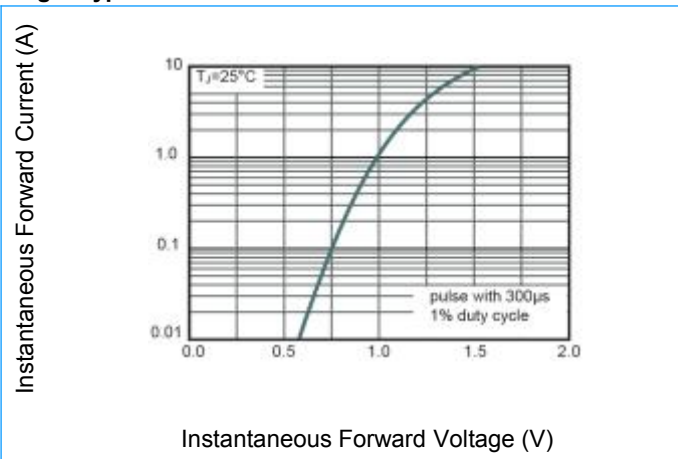
**Fig1. Average Rectified Output Current Derating Curve**



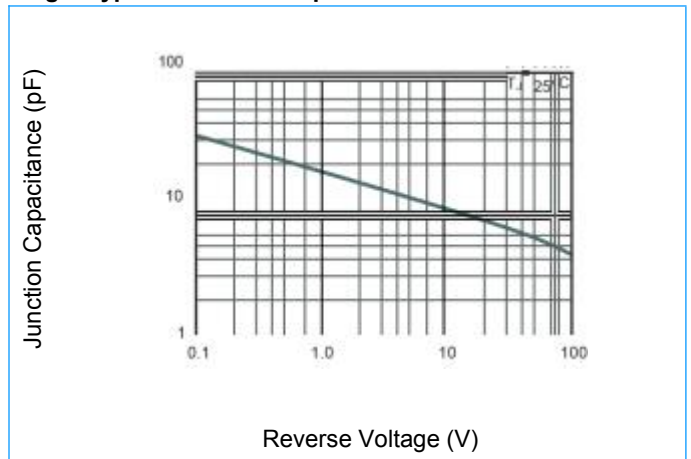
**Fig2. Typical Reverse Characteristics**



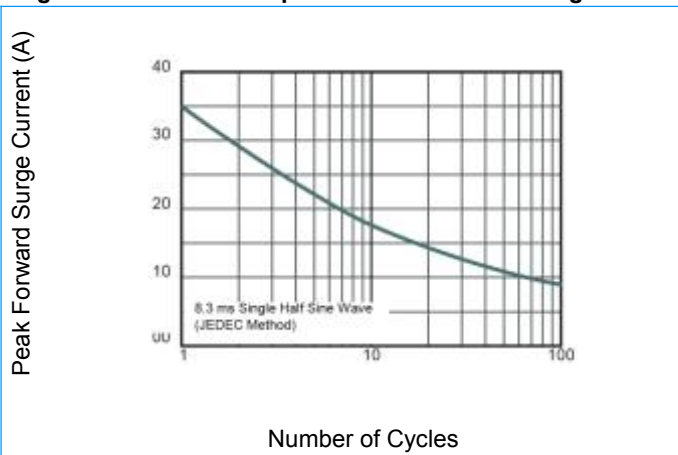
**Fig3. Typical Instantaneous Forward Characteristics**



**Fig4. Typical Junction Capacitance**



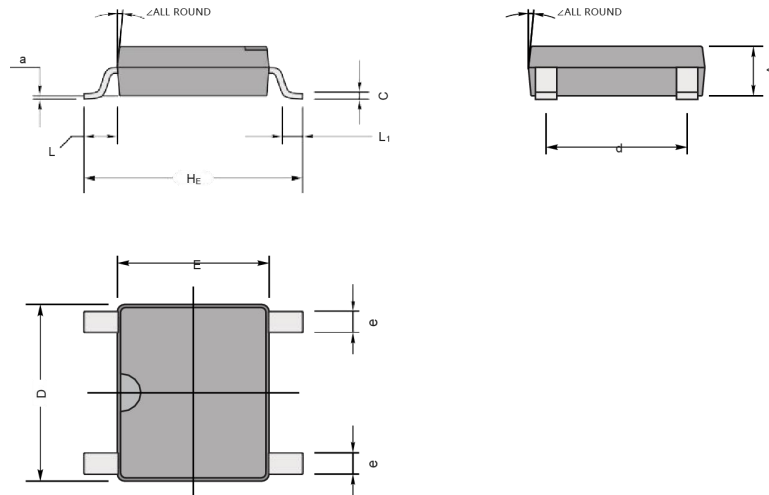
**Fig5. Maximum Non-Repetitive Peak Forward Surge Current**



# 1A Surface Mount Glass Passivated Bridge Rectifier

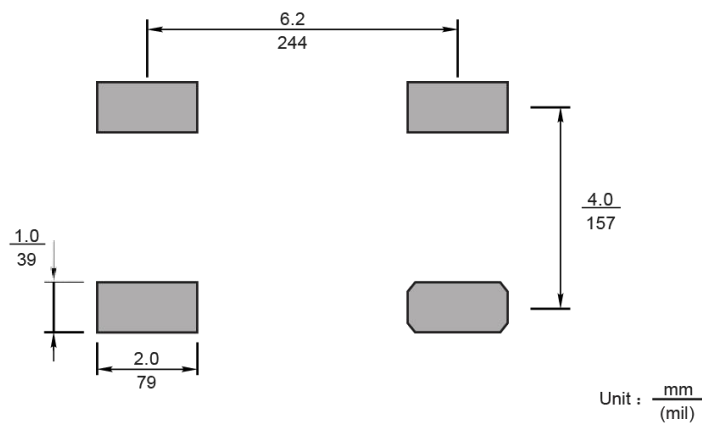
## MBxxS-10 Series

### Package Outline (Unit: inch(mm))



Unit	--	A	C	D	E	He	d	e	L	L1	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	--	

### The Recommended Mounting Pad Size



# 1A Surface Mount Glass Passivated Bridge Rectifier

## MBxxS-10 Series

### Packaging Information

Part Number	Quantity
MBxxS-10 Series	3000 PCS / REEL