

# MB1S-05~MB10S-05

Rev.D May.-2017

## 描述 / Descriptions

0.5A 表面贴装玻璃钝化整流桥，MBS 封装。

0.5A Surface Mount Glass Passivated Bridge Rectifier, MBS package.

## 特征 / Features

玻璃钝化芯片，反向电压：100V~1000V，正向电流：0.5A，浪涌电流大，适用于表面贴装。无卤产品。

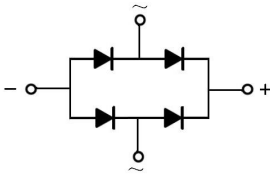
Glass Passivated Chip Junction, Reverse Voltage:100to1000V, Forward Current:0.5 A, High Surge Current Capability, Designed for Surface Mount Application.Halogen free product.

## 用途 / Applications

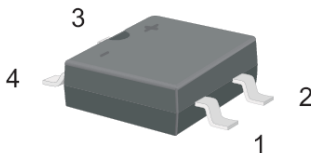
一般用途。

General purpose.

## 内部等效电路 / Equivalent Circuit

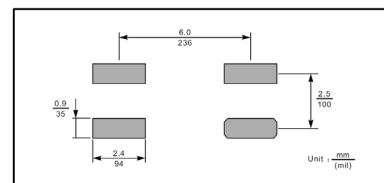


## 引脚排列 / Pinning



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

The recommended mounting pad size



## 印章代码 / Marking

见印章说明。See Marking Instructions.

**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	符号 Symbol	数值 Rating						单位 Unit
		MB1S-05	MB2S-05	MB4S-05	MB6S-05	MB8S-05	MB10S-05	
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 $T_a = 50^\circ\text{C}$	$I_o$	0.5						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	20						A
Typical Junction Capacitance <sup>(Note1)</sup>	$C_j$	11						pF
Typical Thermal Resistance <sup>(Note2)</sup>	$R_{\theta JA}$	120						$^\circ\text{C}/\text{W}$
Typical Thermal Resistance <sup>(Note2)</sup>	$R_{\theta JL}$	35						$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55~+150						$^\circ\text{C}$

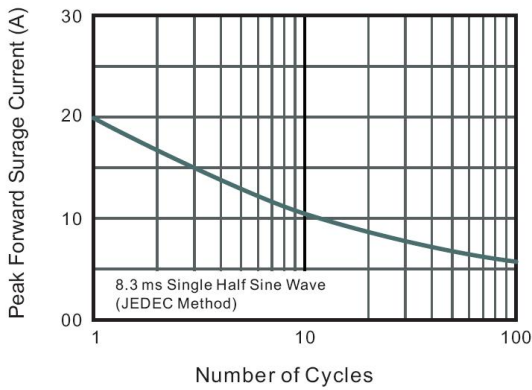
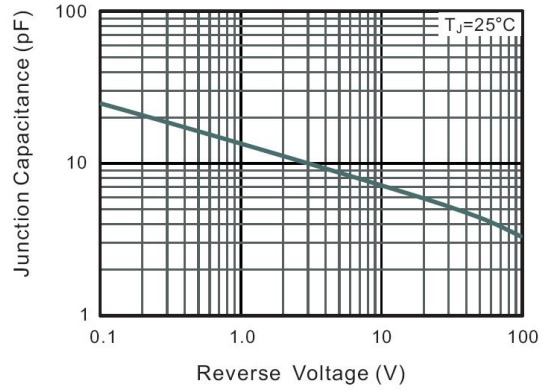
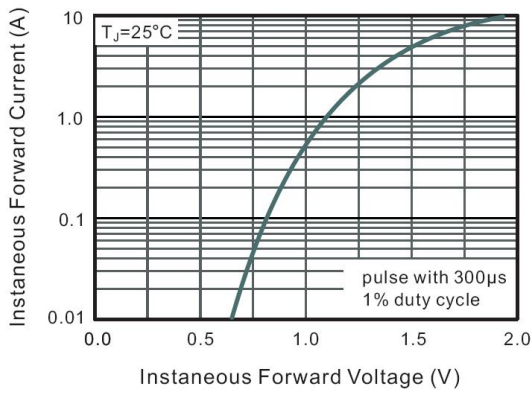
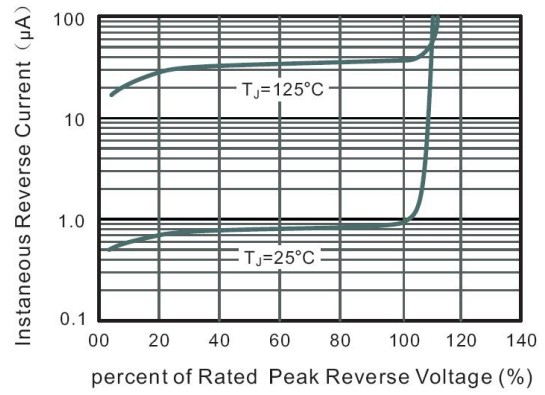
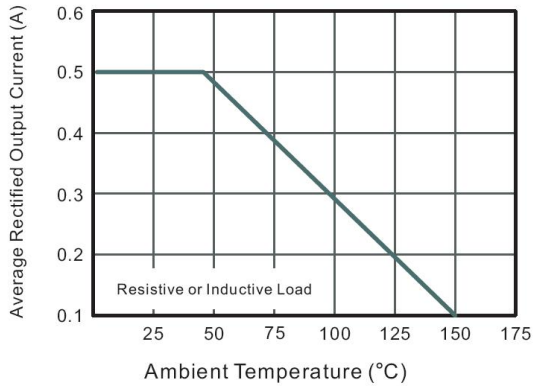
Note:

1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted on glass epoxy PC board with  $4 \times (5 \times 5\text{mm}^2)$  copper pad..

**电性能参数 / Electrical Characteristics(Ta=25°C)**

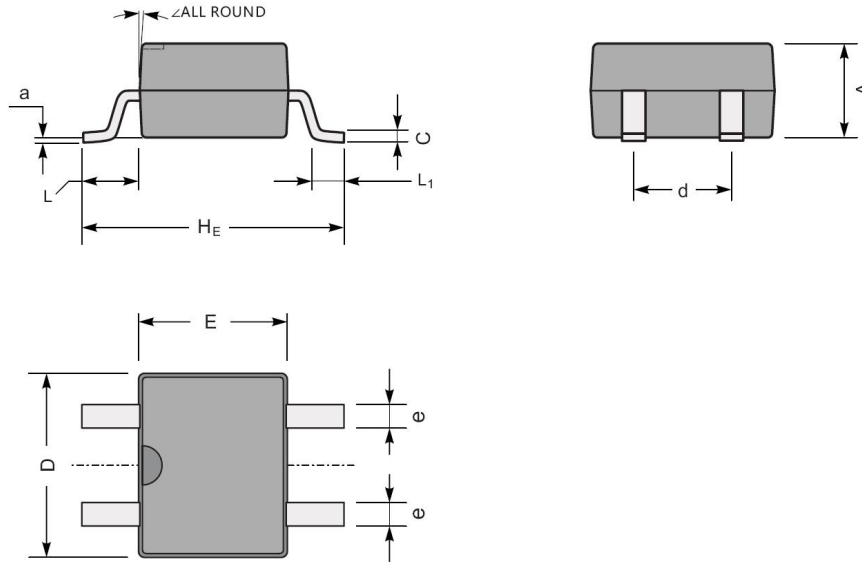
参数 Parameter	符号 Symbol	测试条件 Test condition	数值 Rating	单位 Unit
Maximum Forward Voltage	$V_F$	$I_F=0.5\text{A}$	1.1	V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	$I_R$	$T_a=25^\circ\text{C}$ $T_a=125^\circ\text{C}$	5.0 40	$\mu\text{A}$

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

MBS



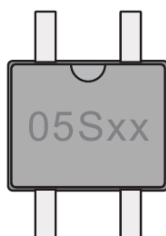
MBS mechanical data

UNIT		A	C	D	E	$H_E$	d	e	L	$L_1$	a	$\angle$
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	—	

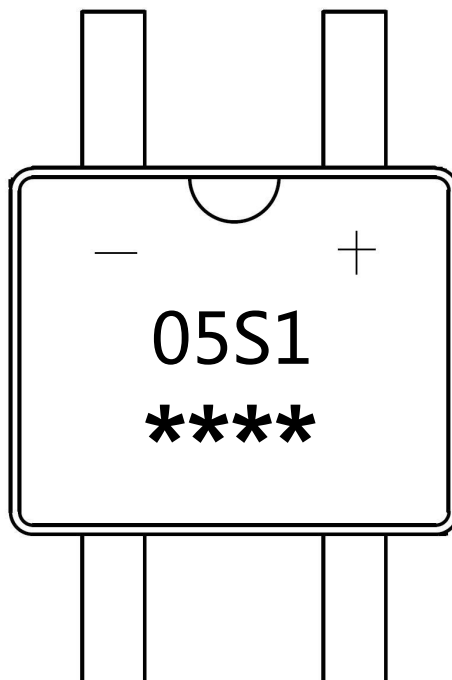
印章说明 / Marking Instructions

Marking

Type number	Marking code
MB1S-05	05S1
MB2S-05	05S2
MB4S-05	05S4
MB6S-05	05S6
MB8S-05	05S8
MB10S-05	05S10



印章说明 / Marking Instructions



说明：

05S1：为型号代码

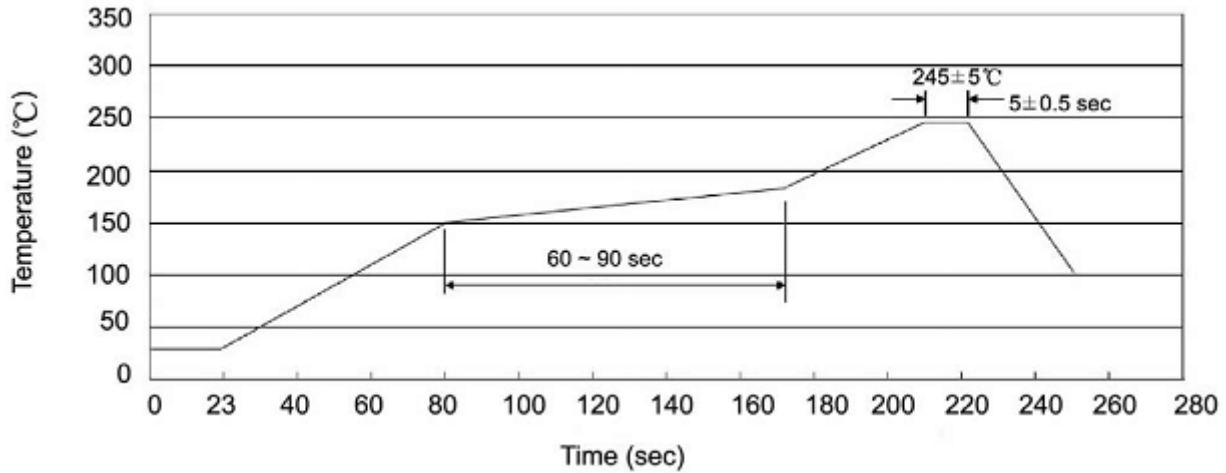
\*\*\*\*\*：为生产批号追溯码，第1个\*为年月代码，后面3个\*为当月小批号代码

Note:

05S1：Product Type Code

\*\*\*\*\*：Lot No. Code，The 1st \* means:YM Code，The last 3 \* means:little Lot No Code

**回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)**



说明：

- 1、预热温度 25 ~ 150°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:25~150°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

**耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions**

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

**包装规格 / Packaging SPEC.**

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
MBS	3000	2	6000	5	30000	13" × 15	336X336X40	380X335X366

**使用说明 / Notices**