MB1L~MB10L

Rev.A Aug.-2024

蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

描述 / Descriptions

0.8A 表面贴装玻璃钝化整流桥，MBL 封装。

0.8A Surface Mount Glass Passivated Bridge Rectifier, MBL package.

特征 / Features

玻璃钝化芯片，反向电压：100V~1000V，正向电流：0.8A，浪涌电流大，适用于表面贴装，无卤产品。

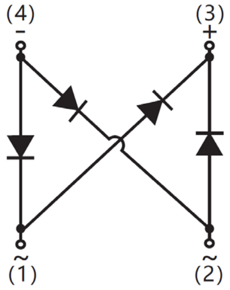
Glass Passivated Chip Junction, Reverse Voltage:100to1000V, Forward Current：0.8A, High Surge Current Capability, Designed for Surface Mount Application, HF product.

用途 / Applications

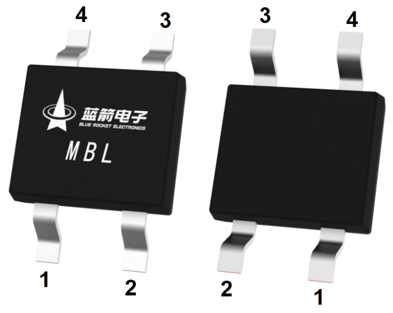
一般用途。

General purpose.

内部等效电路 / Equivalent Circuit

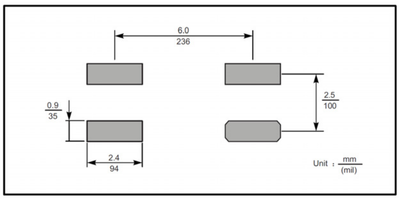


引脚排列 / Pinning



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℃)

参数 Parameter	符号 Symbol	数值 Rating						单位 Unit
		MB1L	MB2L	MB4L	MB6L	MB8L	MB10L	
Maximum Recurrent 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 Forward Rectified Current @ Fig.1	$I_{F(AV)}$	0.8						A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30						A
Peak Forward Surge Current,1.0ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	60						A
I^2t Rating for fusing (3ms≤t≤8.3ms)	I^2t	3.7						A^2S
Typical Junction Capacitance1)	C_j	7						pF
Typical Thermal Resistance2)	$R_{\theta JA}$	45						℃/W
	$R_{\theta JC}$	15						
	$R_{\theta JL}$	25						
Operating and Storage Temperature Range	T_j ,T_{stg}	-55~+150						℃

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.

电性能参数 / Electrical Characteristics(Ta=25℃)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating	单位 Unit
Max Instantaneous Forward Voltage	V_F	I_F=0.8A	1.1	V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	T_a=25℃	5	μA
		T_a=125℃	100	μA

电参数曲线图 / Electrical Characteristic Curve

Fig.1 Average Rectified Output Current Derating Curve

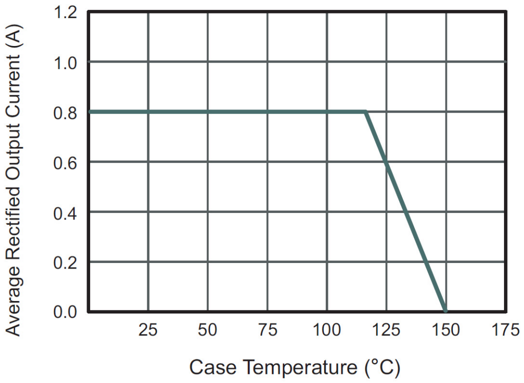


Fig.2 Typical Reverse Characteristics

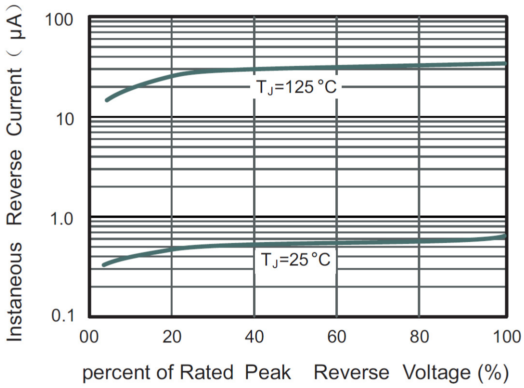


Fig.3 Typical Instaneous Forward Characteristics

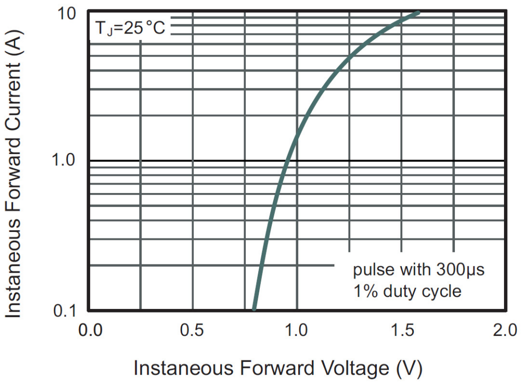


Fig.4 Typical Junction Capacitance

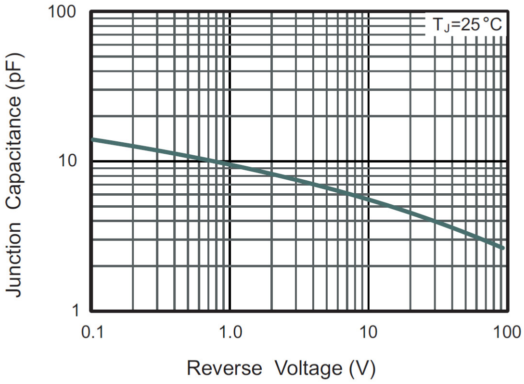
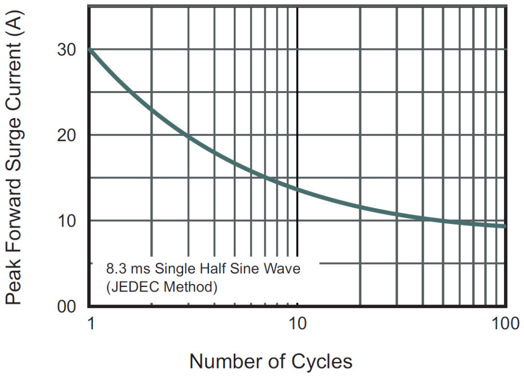
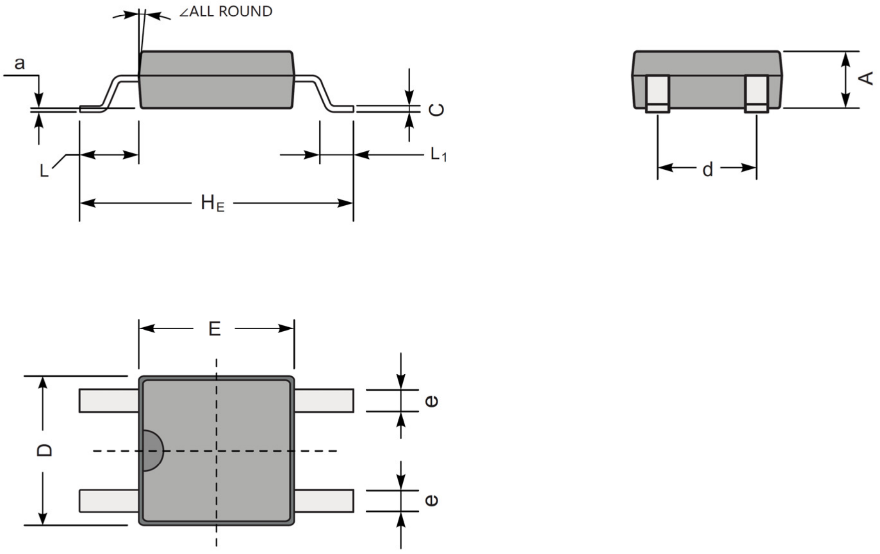


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



外形尺寸图 / Package Dimensions

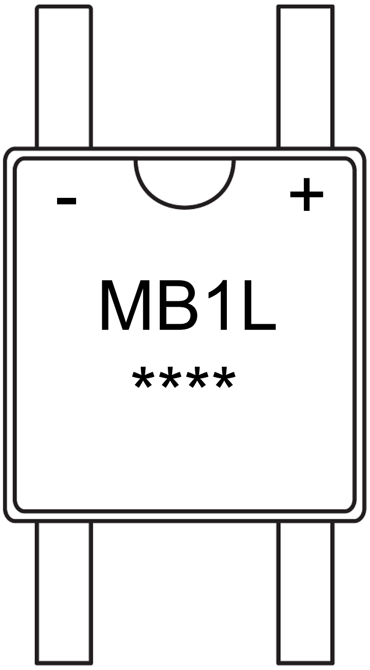
MBL



MBL mechanical data

UNIT		A	C	D	E	H_E	d	e	L	L_1	a	∠
mm	max	1.6	0.18	3.95	4.1	7.0	2.7	0.8	1.7	1.1	0.2	7°
	min	1.2	0.12	3.45	3.6	6.4	2.3	0.5	1.3	0.5	—	
mil	max	63	7.1	156	161	275	106	31	67	43	8	
	min	47	4.7	136	142	252	91	17	51	20	—	

印章说明 / Marking Instructions



说明

MB1L：	为产品型号
****　：	为生产批号代码，随生产批号变化

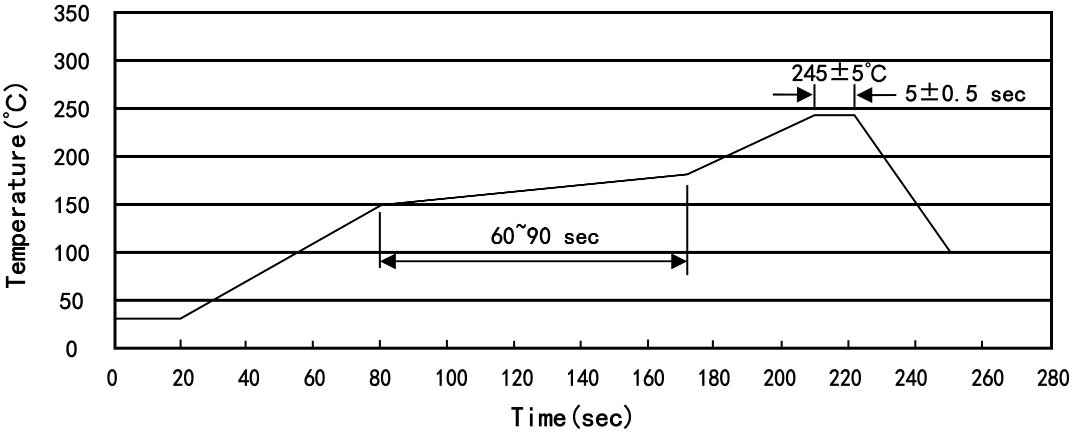
Note:

MB1L :	Product Type
**** :	Lot No. Code, code change with Lot No

Marking

Type number	Marking code
MB1L	MB1L
MB2L	MB2L
MB4L	MB4L
MB6L	MB6L
MB8L	MB8L
MB10L	MB10L

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



说明：	Note:
1、预热温度 150～180℃，时间 60～90sec;	1.Preheating:150~180℃, Time:60~90sec.
2、峰值温度 245±5℃，时间持续为 5±0.5sec;	2.Peak Temp.:245±5℃, Duration:5±0.5sec.
3、焊接制程冷却速度为 2～10℃/sec.	3. Cooling Speed: 2~10℃/sec.

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

温度：260±5℃　　时间：10±1 sec.　　Temp.:260±5℃　　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：mm³)		
	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
MBL	5,000	2	10,000	7	70,000	13″ ×12	336×336×40	380×335×366

使用说明 / Notices