

描述 / Descriptions

表面贴装肖特基二极管，反向电压：40V，正向电流：5.0A，薄型 SMBF 封装。

Surface Mount Schottky Barrier Rectifier, Reverse Voltage:40V,Forward Current:5.0A,SMBF thin package.

特征 / Features

低功耗，高效率，浪涌电流大，适用于低压，高频和极性保护，适用于表面贴装。无卤产品。

Low power loss, high efficiency, High forward surge current capability, For use in low voltage, high frequency inverters, and polarity protection applications,For surface mounted applications.Halogen free product.

用途 / Applications

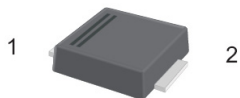
一般用途。

General purpose.

内部等效电路 / Equivalent Circuit

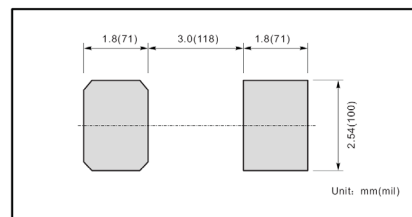


引脚排列 / Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



印章代码 / Marking

Marking

Type number	Marking code
BRLV5T40BF	5T40

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

参数 Parameter	参数符号 Symbol	数值 Rating	单位 Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current	$I_F (AV)$	5.0	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150	A
Typical Junction Capacitance ¹⁾	C_j	850	pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	40	°C/W
Operating Junction Temperature Range	T_j	-55~+150	°C
Storage Temperature Range	T_{stg}	-55~+150	°C

Note:

- 1) Measured at 1MHz and applied reverse voltage of 4 V D.C.
- 2) P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.

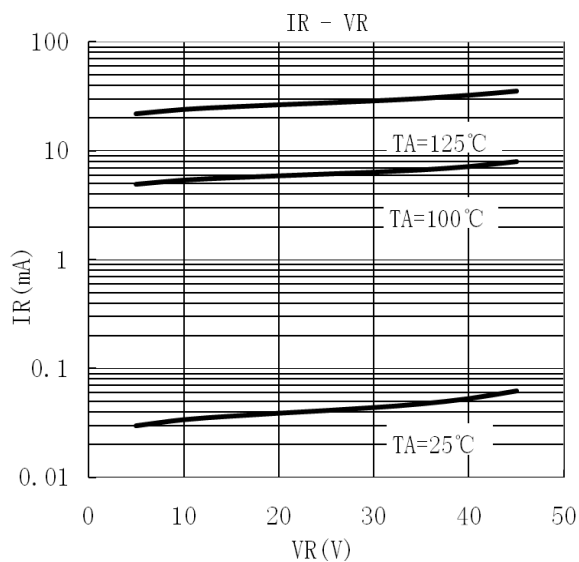
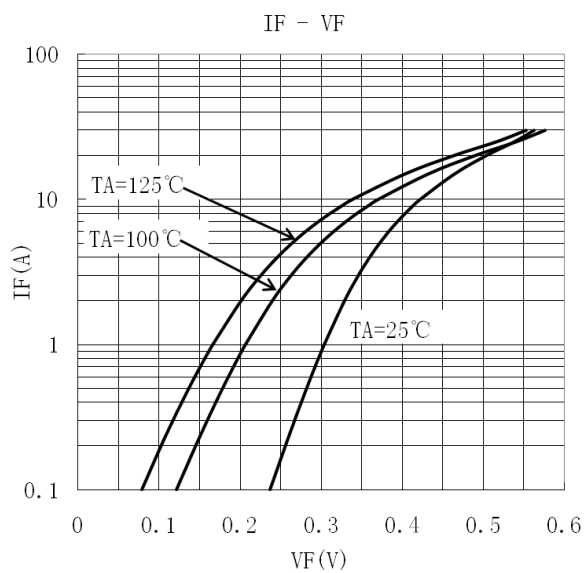
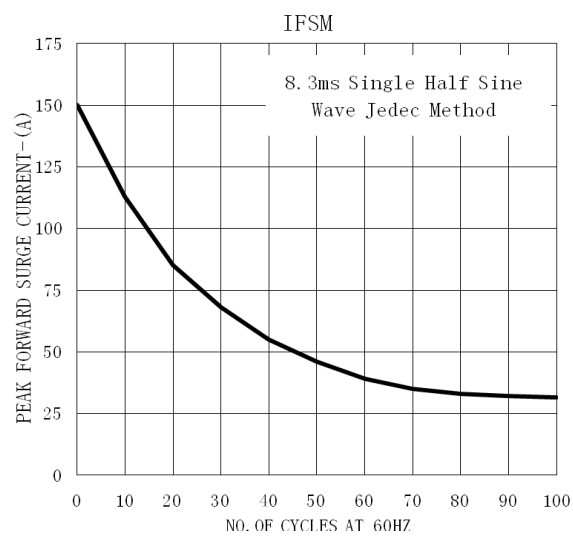
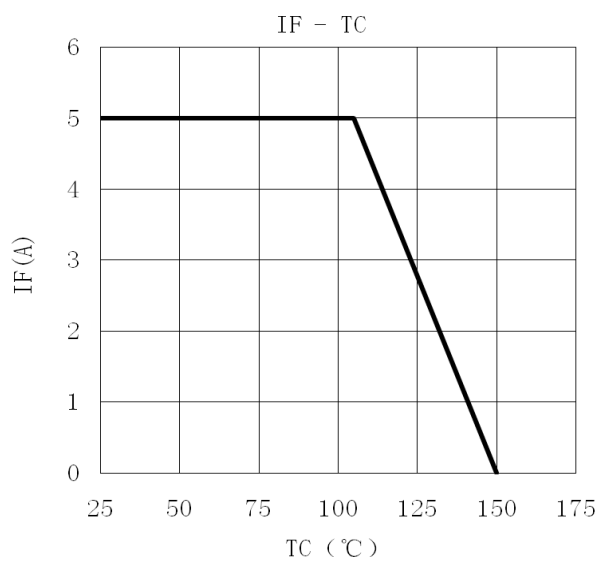
电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	参数符号 Symbol	测试条件 Test condition	数值 Rating	单位 Unit
Max Instantaneous Forward Voltage	V_F	$I_F=1.0A$ Ta=25°C	0.35	V
		$I_F=1.0A$ Ta=125°C	0.25	
		$I_F=5.0A$ Ta=25°C	0.40	
		$I_F=5.0A$ Ta=125°C	0.35	
Maximum DC Reverse Current at Rated DC Reverse Voltage ¹⁾	I_R	Ta=25°C	0.12	mA
		Ta=100°C	12	
		Ta=125°C	50	

Note:

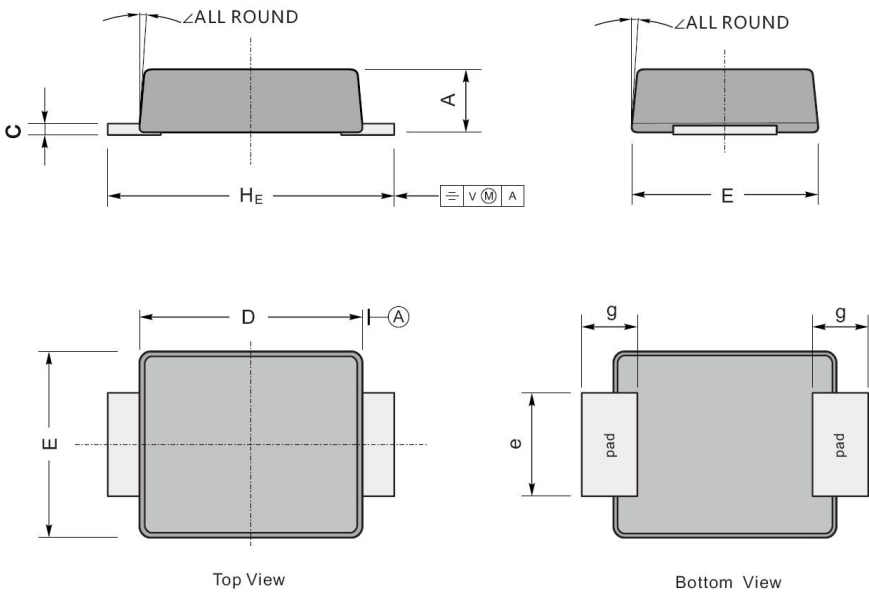
- 1) 使用极短的测试时间，以尽量减少自热效应。
Short duration pulse test used to minimize self-heating effect.
- 2) 除非特别注明，数值为一个芯片的参数。
Unless otherwise noted, values for the parameters of a single chip

电参数曲线图 / Electrical Characteristic Curve



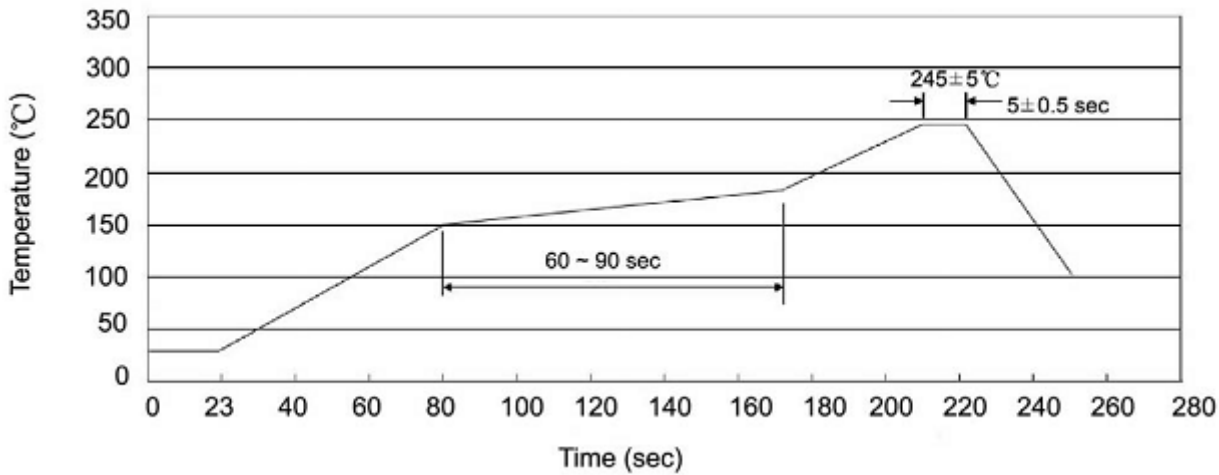
外形尺寸图 / Package Dimensions

SMBF



UNIT		A	C	D	E	H _E	e	g	∠
mm	max	1.3	0.26	4.4	3.7	5.5	2.2	1.0	9°
	min	1.1	0.18	4.2	3.5	5.1	1.9		
mil	max	51	10	173	146	216	86	40	
	min	43	7	165	138	200	75		

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℃，时间 60 ~ 90sec;
 - 2、峰值温度 245±5℃，时间持续为 5±0.5sec;
 - 3、焊接制程冷却速度为 2 ~ 10℃/sec.
- Note:

 - 1.Preheating:25~150℃, Time:60~90sec.
 - 2.Peak Temp.:245±5℃, Duration:5±0.5sec.
 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: mm ³)		
	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
SMBF	5000	2	10000	5	50000	13" ×15	336X332X40	345X345X235

使用说明 / Notices