

# SS52BF~SS520BF

Rev.F Dec.-2022

## 描述 / Descriptions

表面贴装肖特基二极管，反向电压：20V~200V，正向电流：5.0A，薄型 SMBF 封装。

Surface Mount Schottky Barrier Rectifier, Reverse Voltage: 20 to 200V, 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, HF Product.

## 用途 / Applications

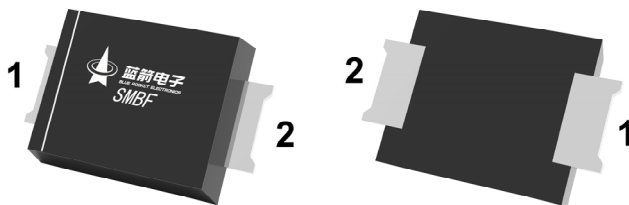
一般用途.

General purpose.

## 内部等效电路 / Equivalent Circuit

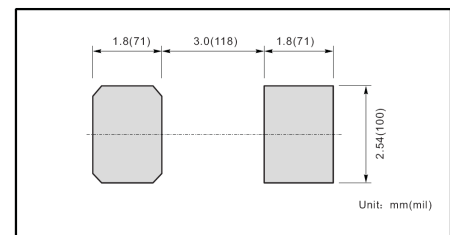


## 引脚排列 / Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

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	参数符号 Symbol	数值 Rating								单位 Unit
		SS52BF	SS54BF	SS56BF	SS58BF	SS510BF	SS512BF	SS515BF	SS520BF	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V <sub>RMS</sub>	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	5.0								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	120								A
Typical Junction Capacitance <sup>1)</sup>	C <sub>j</sub>	800		500						pF
Typical Thermal Resistance <sup>2)</sup>	R <sub>θJA</sub>	45								°C/W
Operating Junction Temperature Range	T <sub>j</sub>	-55 ~ +150								°C
Storage Temperature Range	T <sub>stg</sub>	-55 ~ +150								°C

Note:

1) Measured at 1MHz and applied reverse voltage of 4 V D.C.

2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) 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	
			SS52BF	SS54BF	SS56BF	SS58BF	SS510BF	SS512BF		SS515BF
Max Instantaneous Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =5.0A	0.55		0.70		0.85			V
Maximum DC Reverse Current at Rated DC Reverse Voltage	I <sub>R</sub>	T <sub>a</sub> =25°C	1.0						mA	
		T <sub>a</sub> =100°C	50							

电参数曲线图 / Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

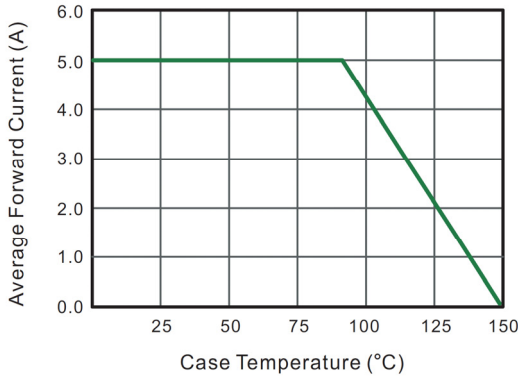


Fig.2 Typical Reverse Characteristics

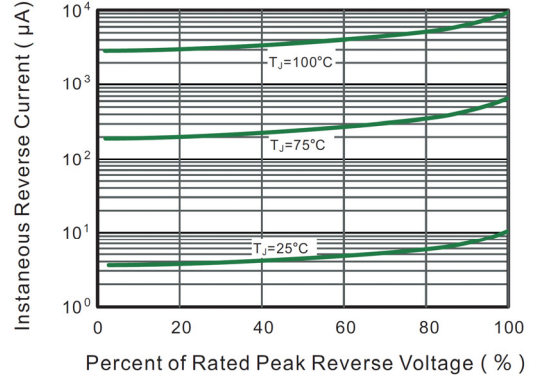


Fig.3 Typical Forward Characteristic

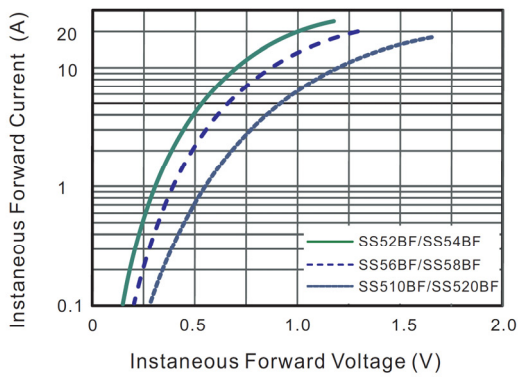


Fig.4 Typical Junction Capacitance

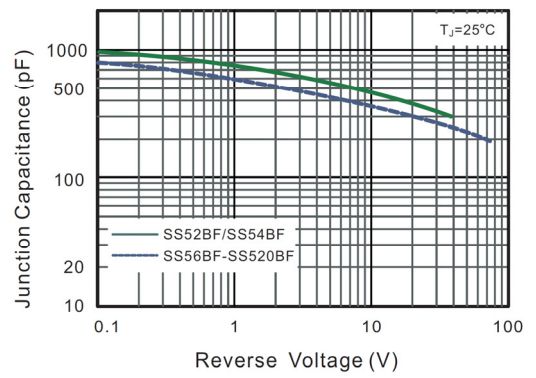


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

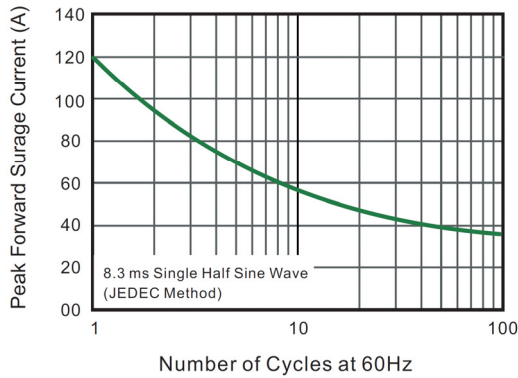
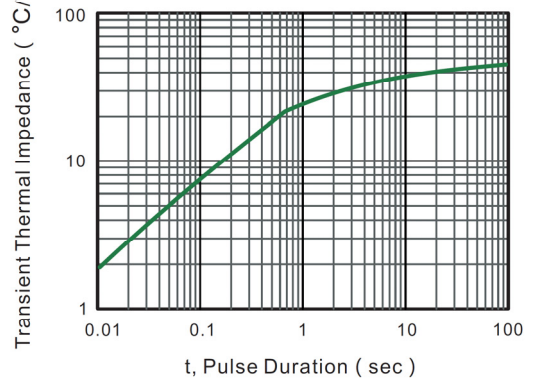
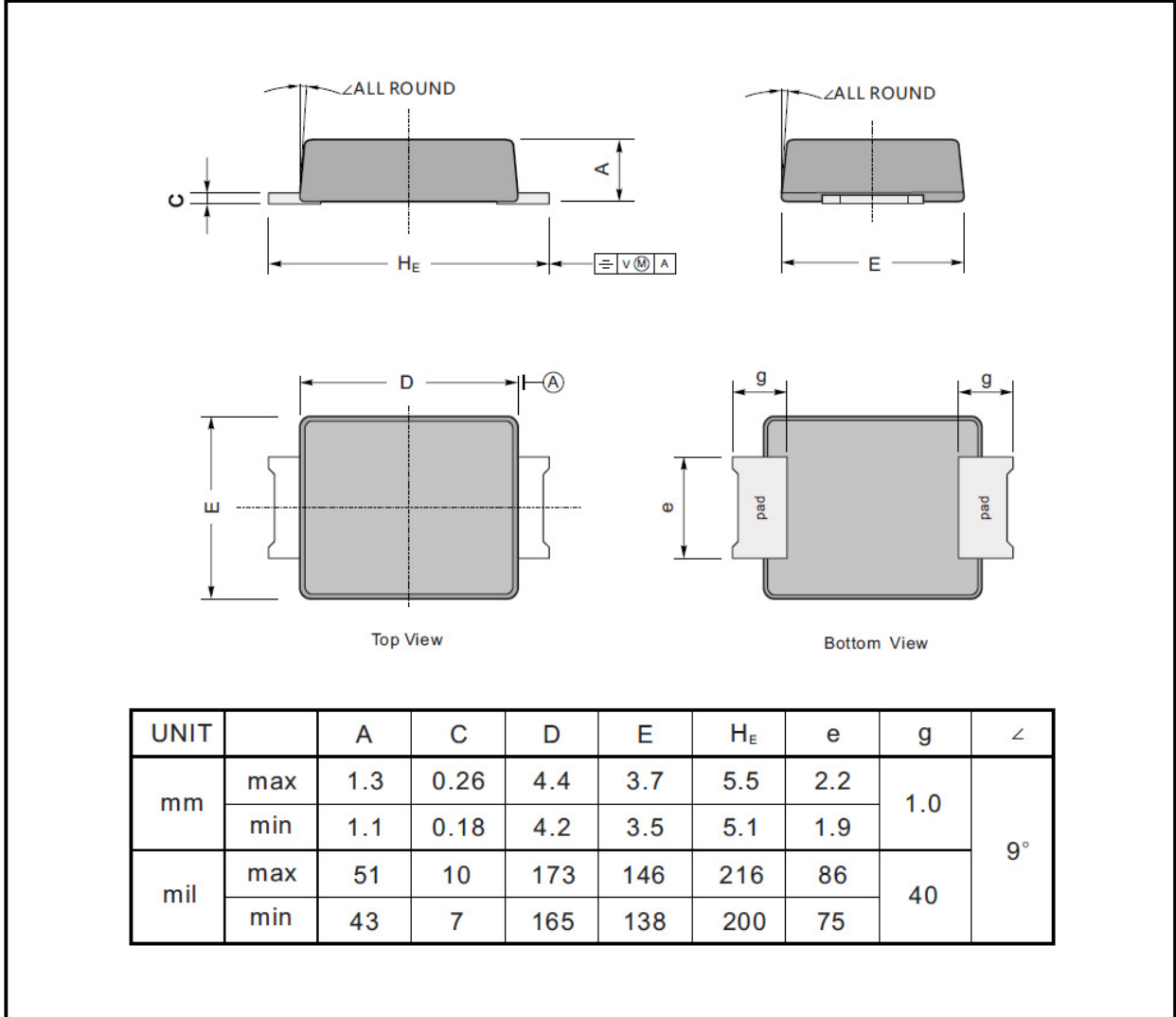


Fig.6 Typical Transient Thermal Impedance



外形尺寸图 / Package Dimensions

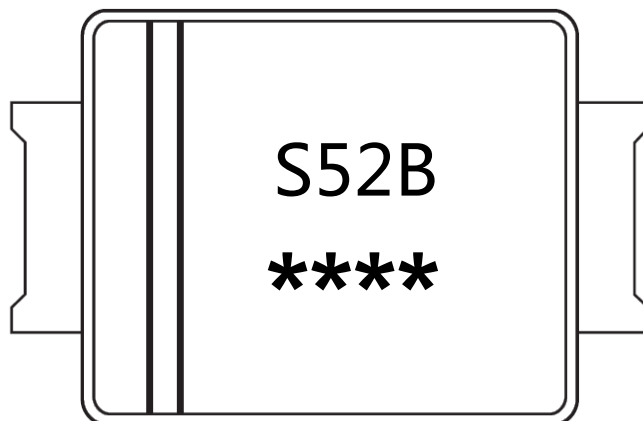
SMBF



## Marking

Type number	Marking code
SS52BF	S52B
SS54BF	S54B
SS56BF	S56B
SS58BF	S58B
SS510BF	S510B
SS512BF	S512B
SS515BF	S515B
SS520BF	S520B

印章说明 / Marking Instructions



说明：

S52B： 为型号代码

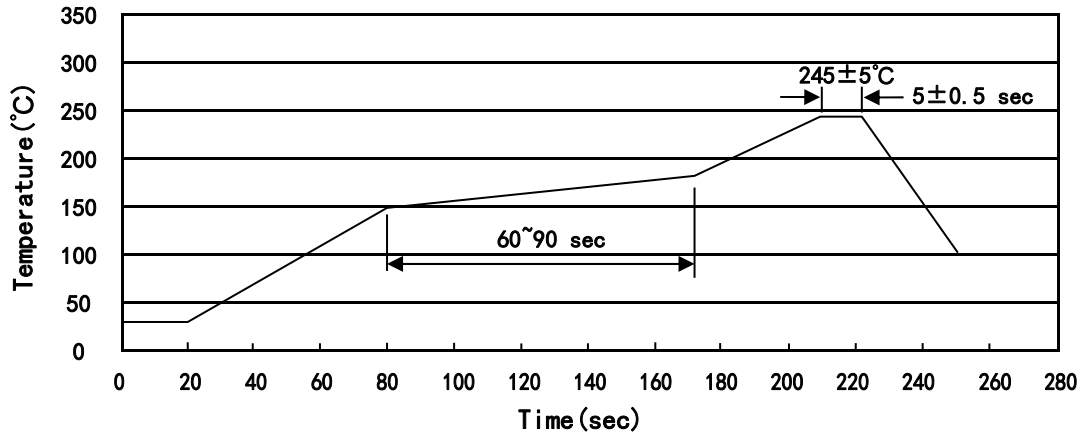
\*\*\*\*： 为生产批号追溯码，第1个\*为年月代码，后面3个\*为当月小批号代码

Note:

S52B： 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 150 ~ 180°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:150~180°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
SMBF	5000	2	10000	7	70000	13" × 12	336X336X40	380X335X366

**使用说明 / Notices**