

BRB5817WQ-BRB5819WQ

Rev.B Apr.-2023

描述 / Descriptions

SOD-123 塑封封装 肖特基二极管。

Schottky Diode in a SOD-123 Plastic Package.

特征 / Features

低正向压降，符合 AEC-Q101 标准高可靠性要求，无卤产品。

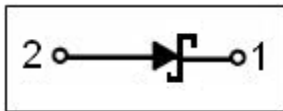
Low positive pressure drop, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

用途 / Applications

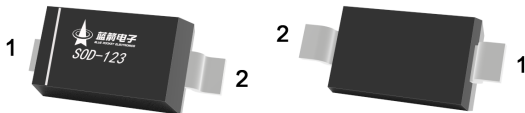
一般用途，满足汽车应用的严格要求。

General purpose, Meet the stringent requirements of automotive applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1:Cathode

PIN2:Anode

印章代码 / Marking

Model	BRB5817WQ	BRB5818WQ	BRB5819WQ
Marking	QSJ	QSK	QSL

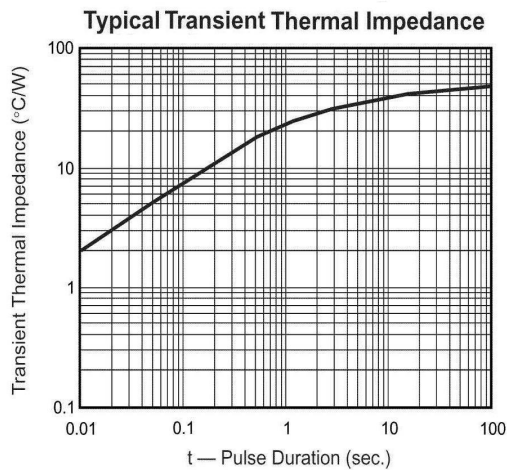
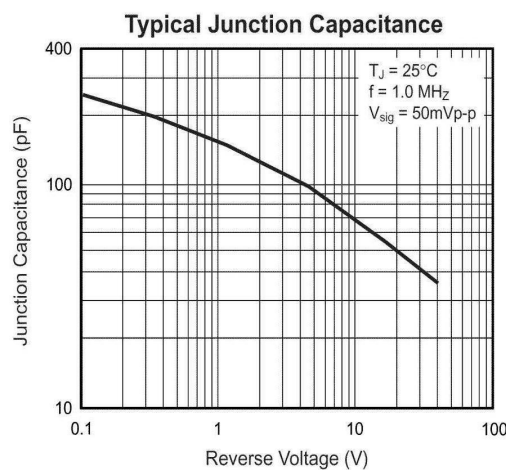
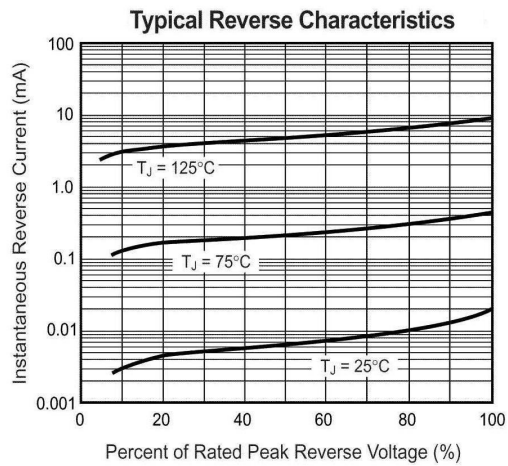
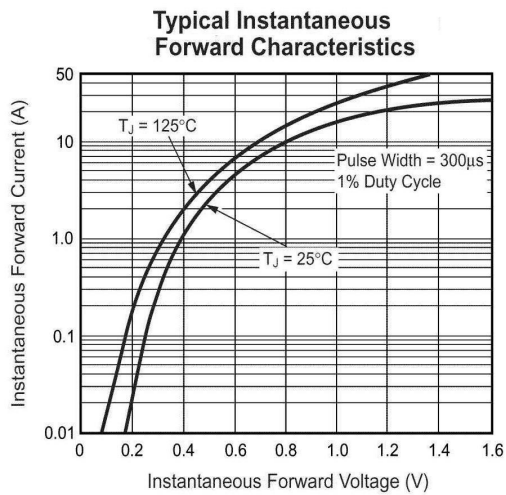
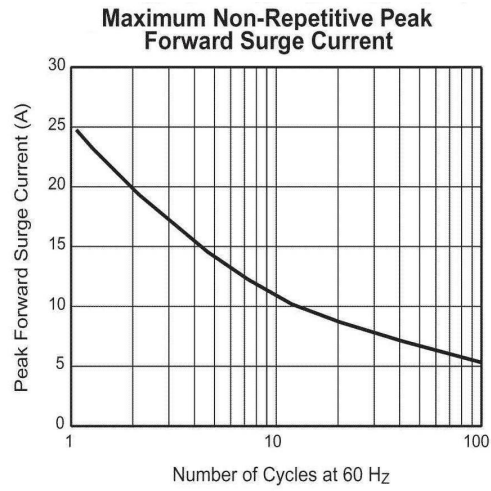
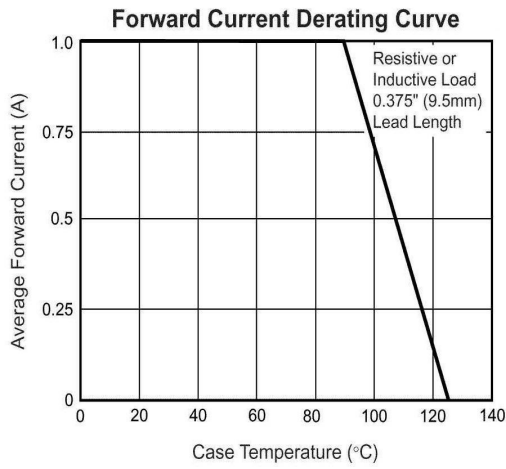
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating			单位 Unit
		BRB5817WQ	BRB5818WQ	BRB5819WQ	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Forward Current	I_F	1			A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	25			A
Power Dissipation	P_D	450			mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	220			°C/W
Junction and Storage Temperature Range	T_J, T_{stg}	-65 to 125			°C

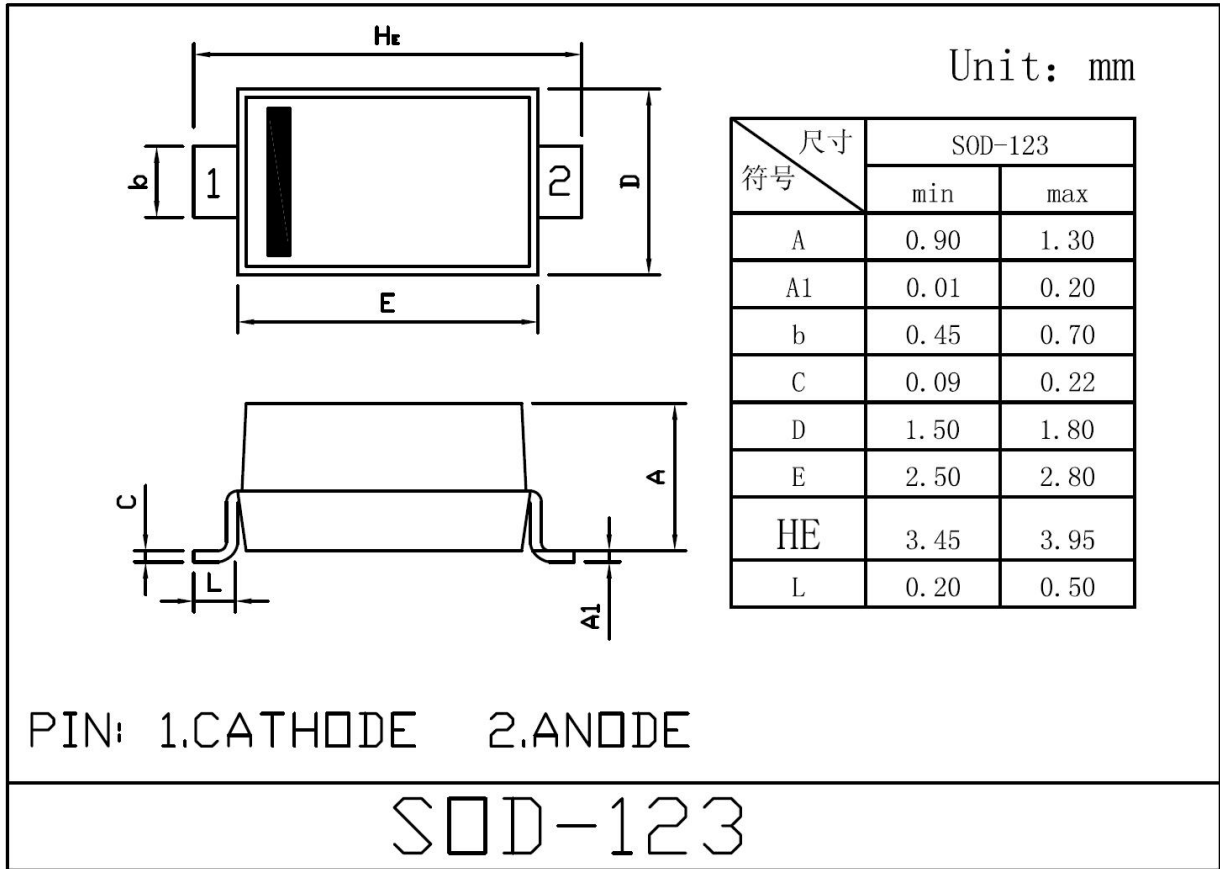
电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating						单位 Unit
			BRB5817WQ		BRB5818WQ		BRB5819WQ		
			MIN	MAX	MIN	MAX	MIN	MAX	
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$	20		30		40		V
Forward Voltage	V_F	$I_F=0.1A$		0.32		0.35		0.40	V
		$I_F=1A$		0.45		0.55		0.60	
		$I_F=3A$ ($t<5\mu s$)		0.75		0.875		0.95	
Instantaneous Reverse Current	I_{RM}	$V_R=V_{RRM}$	1						mA
Junction Capacitance	C_J	$V_R=4V$ $f=1.0MHZ$	120						pF

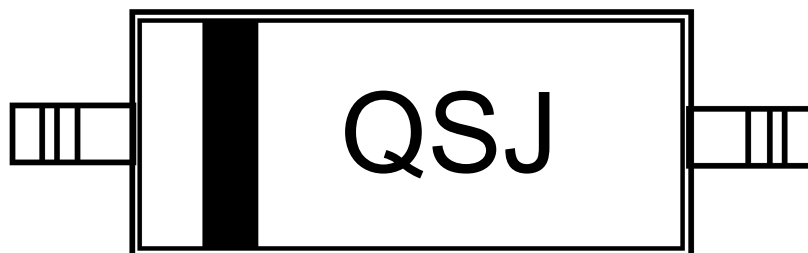
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions



印章说明 / Marking Instructions



说明：

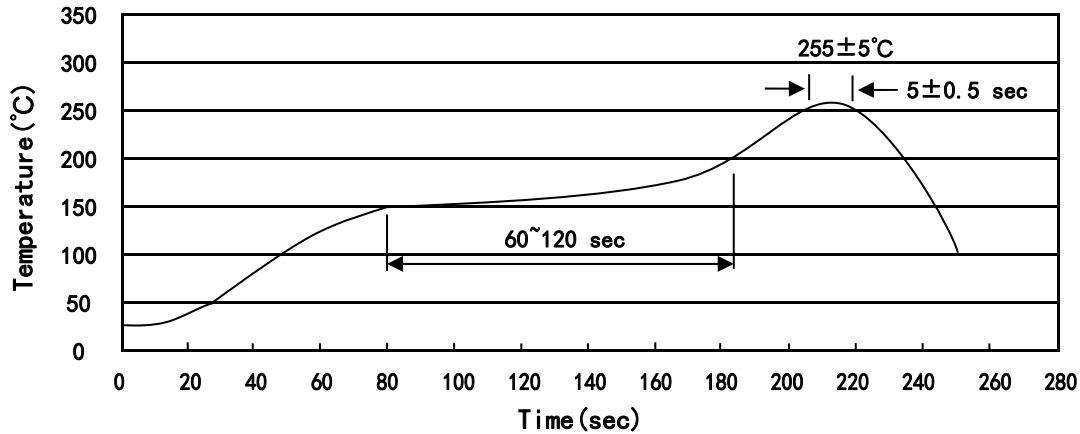
Q： 为汽车无卤产品标识

SJ： 为型号代码

Note:

Q: Automobile halogen-free product Code

SJ: Product Type

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 ~ 200°C，时间 60 ~ 120sec;
- 2、峰值温度 255±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:150~200°C, Time:60~120sec.
- 2.Peak Temp.:255±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 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
SOD-123	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

使用说明 / Notices