

BRSD103AWSQ/BWSQ/CWSQ

Rev.A May.-2023

描述 / Descriptions

SOD-323 塑封封装 肖特基二极管。

Schottky Diode in a SOD-323 Plastic Package.

特征 / Features

低正向压降，可忽略的反向恢复时间，符合 AEC-Q101 标准高可靠性要求，无卤产品。

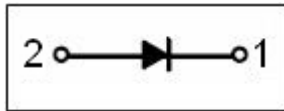
Low positive pressure drop, can ignore the reverse recovery time, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

用途 / Applications

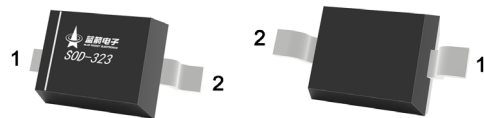
肖特基二极管，满足汽车应用的严格要求。

Schottky diode, 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	BRSD103AWSQ	BRSD103BWSQ	BRSD103CWSQ
Marking	QS4	QS5	QS6

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

参数 Parameter	符号 Symbol	数值 Rating			单位 Unit
		BRSD103AWSQ	BRSD103BWSQ	BRSD103CWSQ	
Peak Repetitive Reverse Voltage , Working Peak Reverse Voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	40	30	20	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	21	14	V
Non-Repetitive Peak Forward Current	I_{FM}	350			mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	1.5			A
Power Dissipation	P_D	200			mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625			°C/W
Junction and Storage Temperature Range	T_J, T_{stg}	-65~125			°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
			最小值 Min	典型值 Typ	最大值 Max	
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=10\mu A$	V_R			V
Forward Voltage Drop	V_{FM}	$I_F=20mA$			0.37	V
		$I_F=200mA$			0.6	
Instantaneous Reverse Current	BRSD103AWSQ	$V_R=30V$			5.0	uA
	BRSD103BWSQ	$V_R=20V$				
	BRSD103CWSQ	$V_R=10V$				
Reverse Recovery Time	t_{rr}	$I_F=I_R=200mA$ $I_{rr}=0.1 \times I_R$ $R_L=100\Omega$		10		ns
Total Capacitance	C_T	$V_R=0V$ $f=1.0MHz$		50		pF

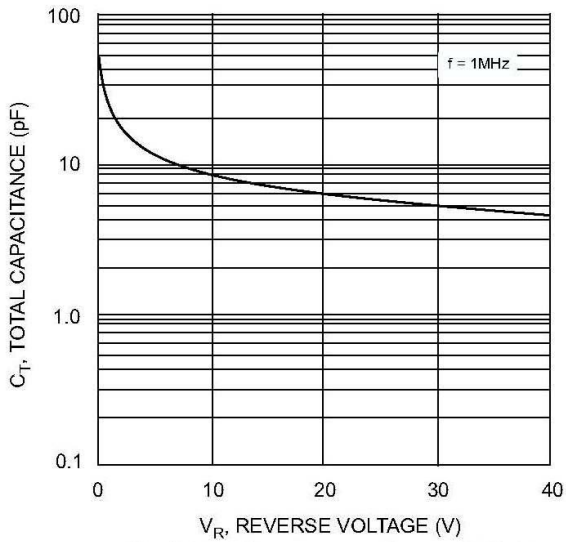
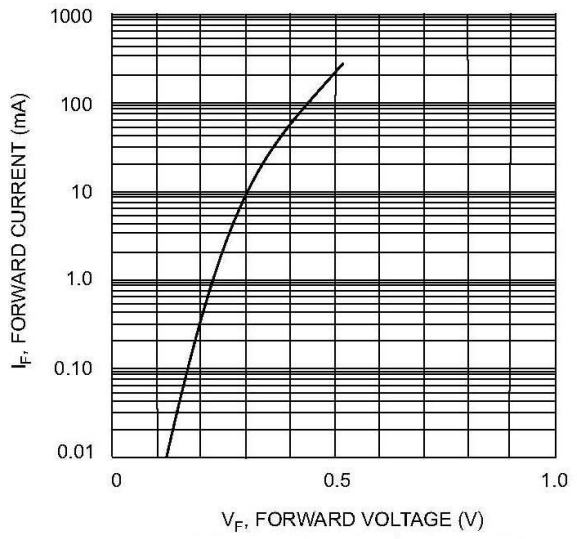
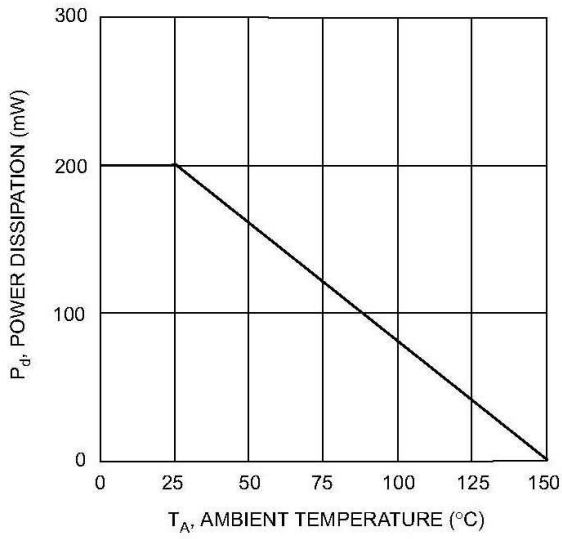
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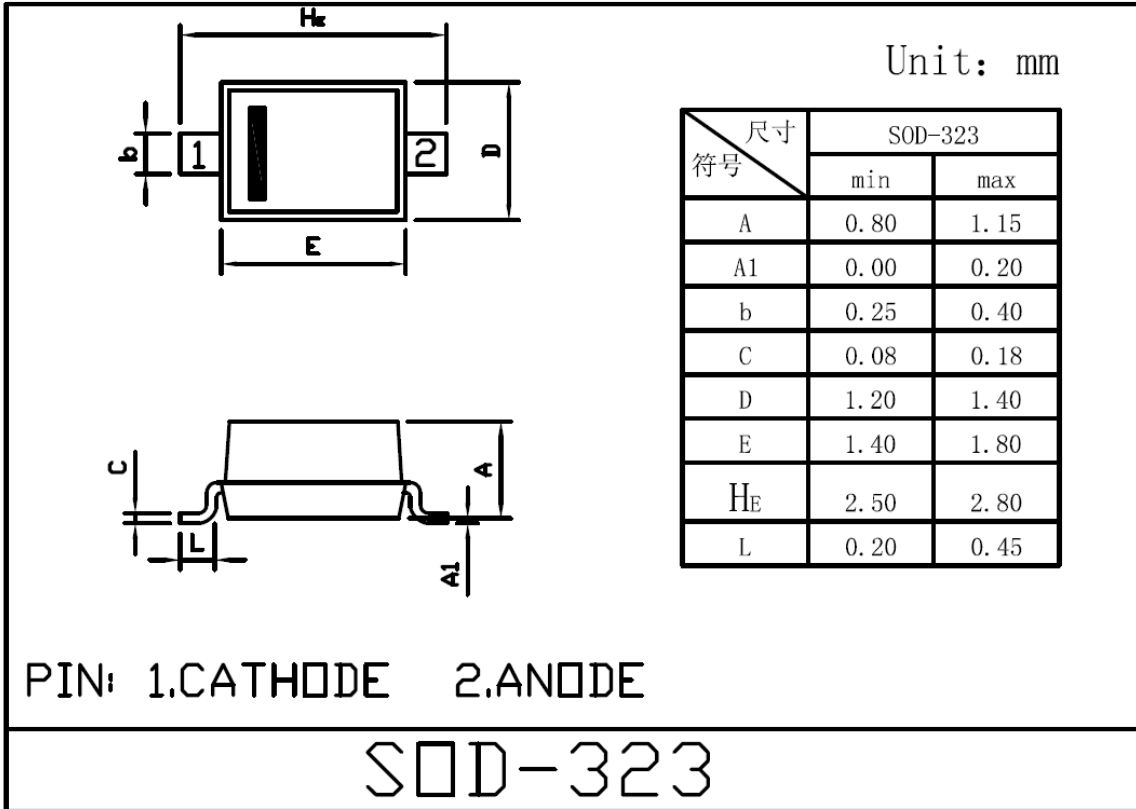


DATA SHEET

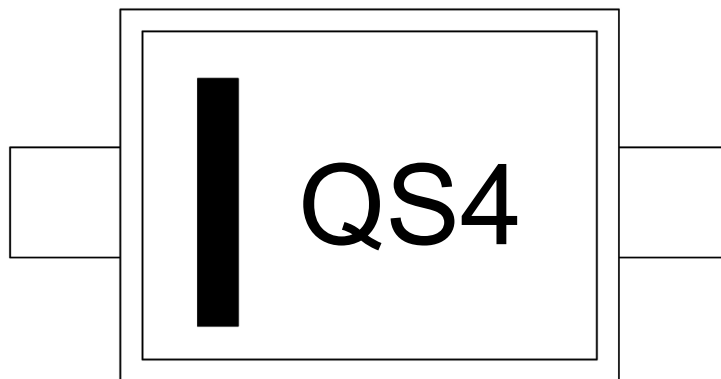
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions



印章说明 / Marking Instructions



说明：

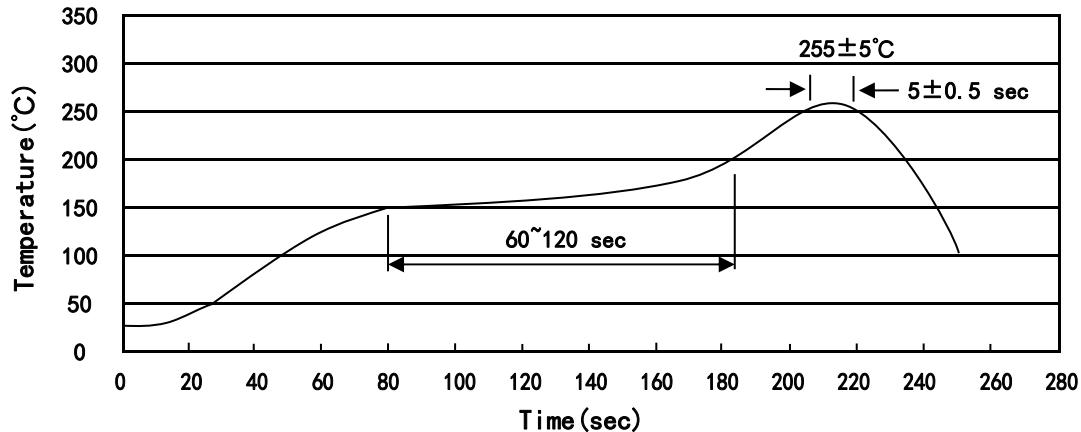
Q： 为汽车无卤产品标识

S4： 为型号代码

Note:

Q: Automobile halogen-free product Code

S4: 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-323	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

使用说明 / Notices