

BRBAV19WSQ-BRBAV21WSQ

Rev.B Aug.-2025

描述 / Descriptions

SOD-323 塑封封装硅半导体二极管。

Silicon Diode in a SOD-323 Plastic Package.

特征 / Features

开关速度快，符合 AEC-Q101 标准高可靠性要求，无卤产品。

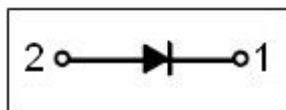
Fast switching diodes, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

用途 / Applications

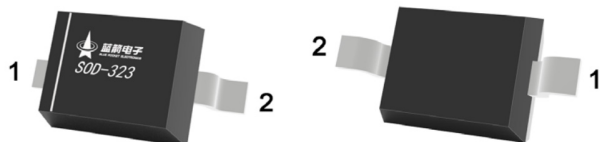
用于小信号处理，满足汽车应用的严格要求。

Small signal 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	BRBAV19WSQ	BRBAV20WSQ	BRBAV21WSQ
Marking	QA8	QT2	QT3

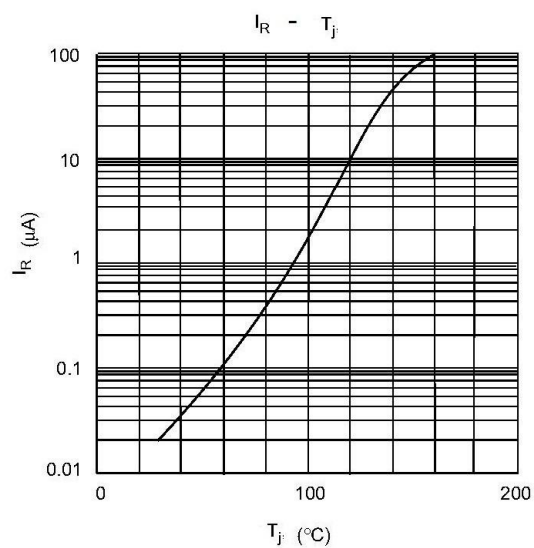
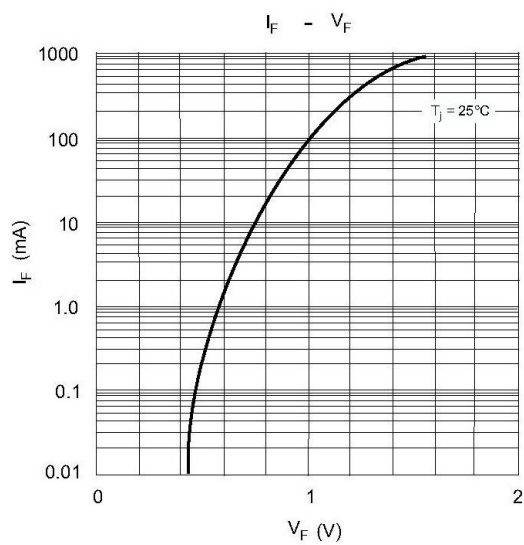
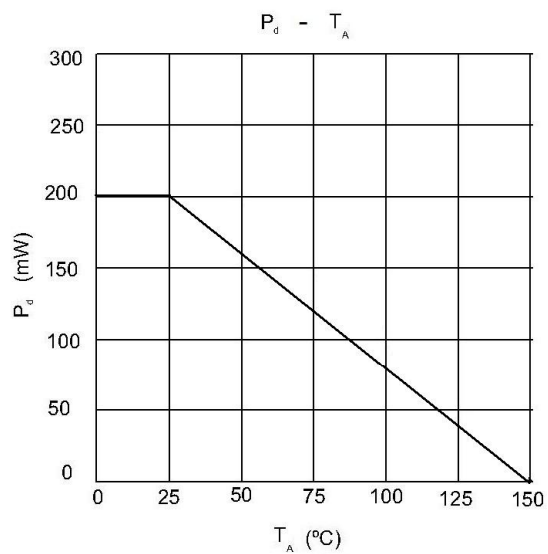
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating			单位 Unit
		BRBAV19WSQ	BRBAV20WSQ	BRBAV21WSQ	
Peak Repetitive Reverse Voltage	V_{RRM}	120	200	250	V
Working Peak Reverse Voltage, DC Reverse Voltage	V_{RWM} , V_R	100	150	200	V
RMS Reverse Voltage	$V_R (RMS)$	71	106	141	V
Non-Repetitive Peak Forward Current	I_{FM}	400			m A
Output Current	I_O	200			m A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	t=1.0μs:2.5A t=1.0s:0.5A			A
Power Dissipation	P_d	200			m W
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500			°C / W
Junction and Storage Temperature Range	T_J, T_{stg}	-65°C TO +150°C			°C

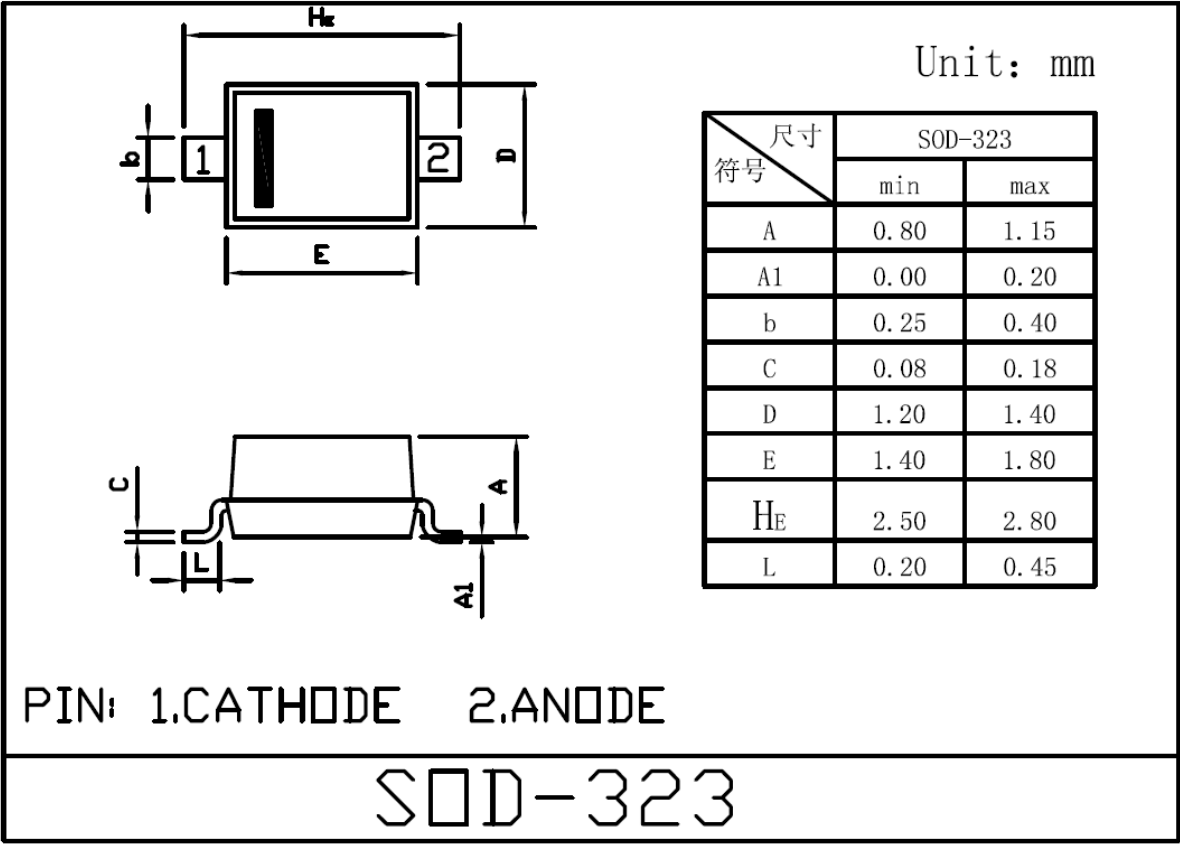
电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions		数值 Rating		单位 Unit
				MIN	MAX	
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\mu A$	BRBAV19WSQ	120		V
			BRBAV20WSQ	200		
			BRBAV21WSQ	250		
Peak Forward Voltage	V_{FM}	$I_F=100mA$			1.0	V
		$I_F=200mA$			1.25	
Instantaneous Reverse Current	I_{RM}	$T_J=25^\circ C$	$V_R=V_{RWM}$		100	nA
		$T_J=100^\circ C$	$V_R=V_{RWM}$		15	uA
Reverse Recovery Time	t_{rr}	$I_F=I_R=30mA$ $I_{rr}=0.1 \times I_R$ $R_i=100\Omega$			50	ns
Total Capacitance	C_T	$V_R=0$ $f=1.0MHz$			5.0	pF

电参数曲线图 / Electrical Characteristic Curve

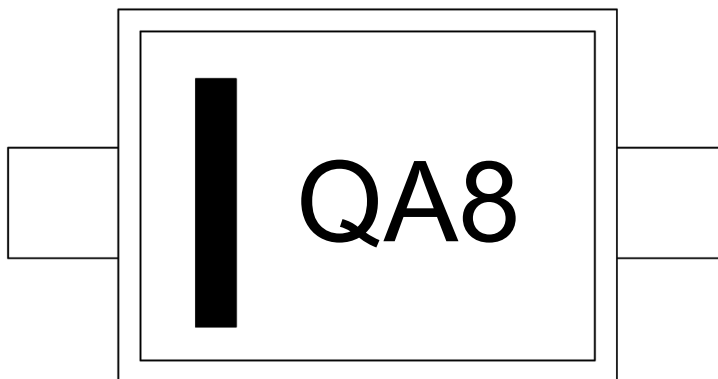


外形尺寸图 / Package Dimensions





印章说明 / Marking Instructions



说明：

Q： 为汽车无卤产品标识

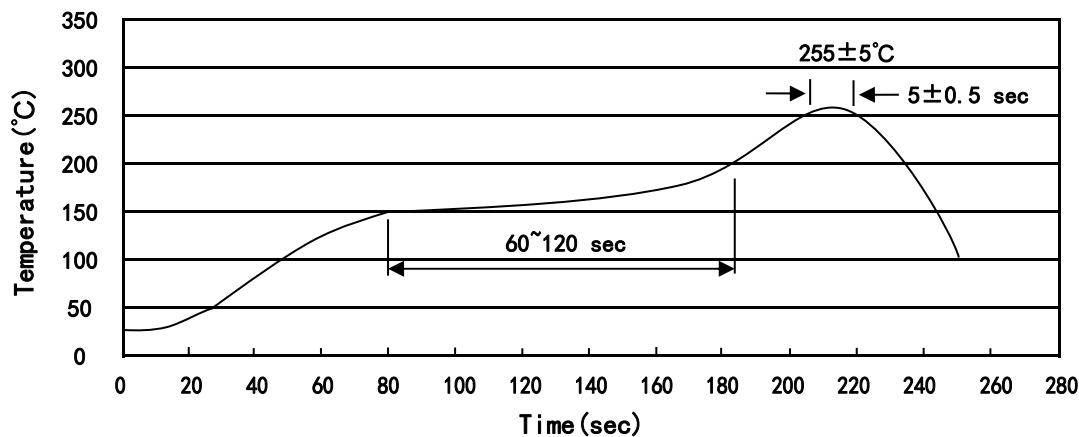
A8： 为型号代码

Note:

Q: Automobile halogen-free product Code

A8: Product Type

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 ~ 200℃，时间 60 ~ 120sec;

1.Preheating:150~200℃, Time:60~120sec.

2、峰值温度 255±5℃，时间持续为 5±0.5sec;

2.Peak Temp.:255±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: 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