

BRBAT54WQ

Rev.A Oct.-2025

描述 / Descriptions

SOD-123 塑封封装 肖特基二极管。
Schottky Diode in a SOD-123 Plastic Package.

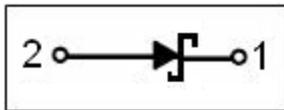
特征 / Features

肖特基二极管，符合 AEC-Q101 标准高可靠性要求，无卤产品。
Schottky diodes, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

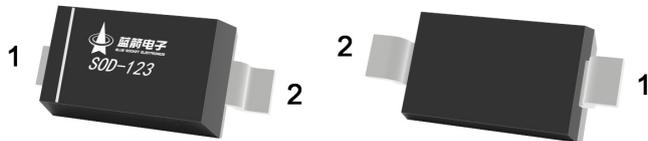
用途 / Applications

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

Marking	QL4
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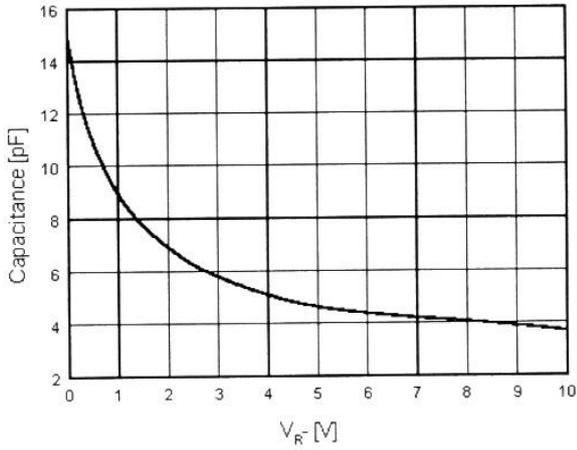
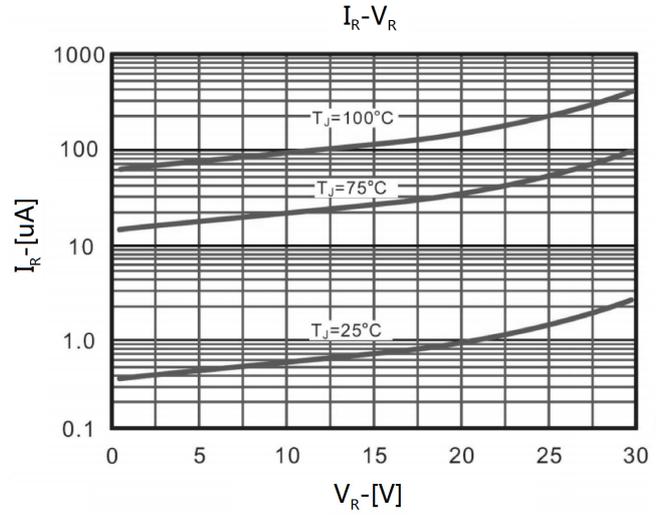
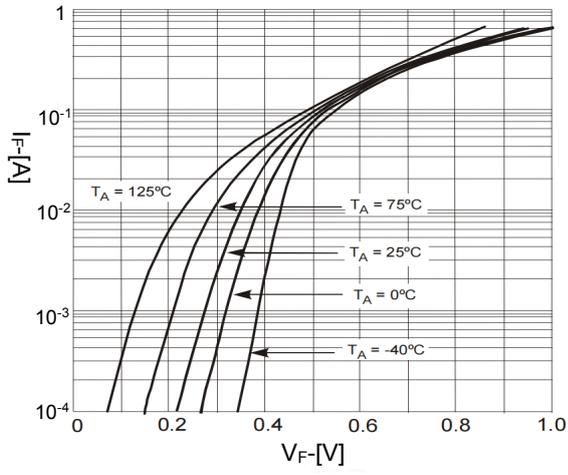
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Repetitive peak reverse voltage	V_{RRM}	30	V
Continuous forward current	I_F	200	mA
Surge non repetitive forward current	I_{FSM}	600	mA
Power Dissipation	P_D	250	mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	430	°C/W
Junction Temperature Range	T_J	125	°C
Storage Temperature Range	T_{stg}	-55~150	°C

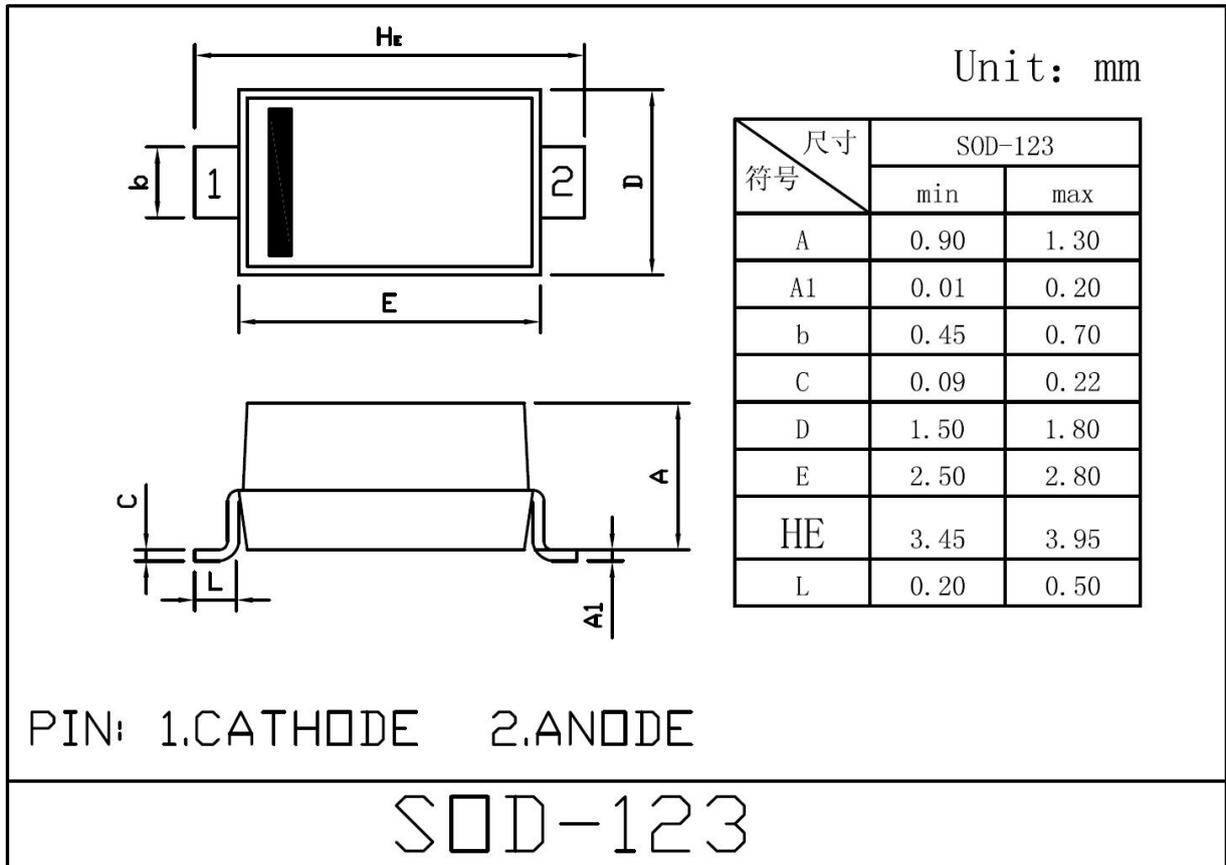
电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating		单位 Unit
			MIN	MAX	
Reverse Voltage	V_R	$I_R=10\mu A$	30		V
Peak Forward voltage	V_F	$I_F=0.1mA$		240	mV
		$I_F=1.0mA$		320	mV
		$I_F=10mA$		400	mV
		$I_F=30mA$		500	mV
		$I_F=100mA$		0.8	V
Instantaneous Reverse Current	I_R	$V_R=25V$		2.0	μA
Total capacitance	C_T	$V_R=1.0V$ $f=1.0MHz$		10	pF
Reverse recovery time	t_{rr}	$I_{RR}=1.0mA$ $R_L=100\Omega$ $I_F=10mA$		5.0	ns

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions



印章说明 / Marking Instructions



说明：

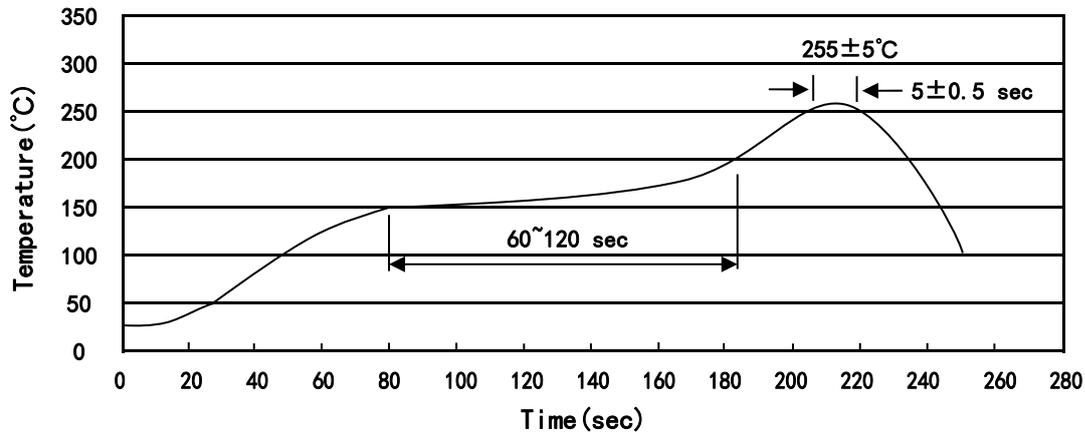
Q： 为汽车无卤产品标识

L4： 为型号代码

Note:

Q: Automobile halogen-free product Code

L4: Product Type 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 150~200°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