

BRBAS40Q-04/05/06

Rev.A Dec.-2022

描述 / Descriptions

SOT-23塑封封装 肖特基二极管。Schottky barrier diodes in a SOT-23 Plastic Package.

特征 / Features

正向开启电流小，低电容二极管，小型片式封装，符合 AEC-Q101 标准高可靠性要求，无卤产品。

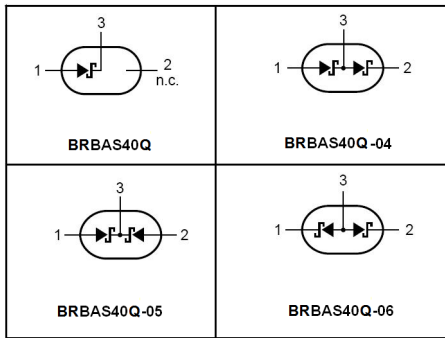
Low forward current, Low diode capacitance, small plastic SMD package, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

用途 / Applications

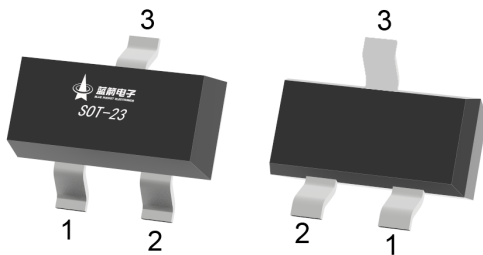
用于超高速开关、电压钳位、保护电路，满足汽车应用的严格要求。

Ultra high-speed switching, voltage clamping, protection circuits, Meet the stringent requirements of automotive applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN: See Equivalent Circuit.

印章代码 / Marking

Type	BRBAS40Q	BRBAS40Q-04	BRBAS40Q-05	BRBAS40Q-06
Marking	Q43	Q44	Q45	Q46

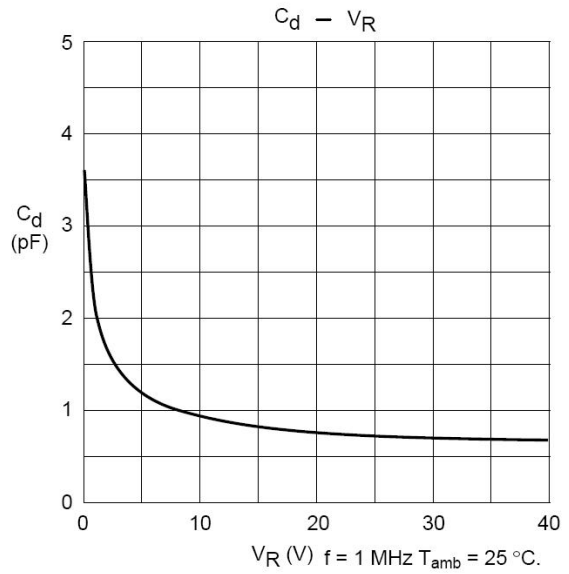
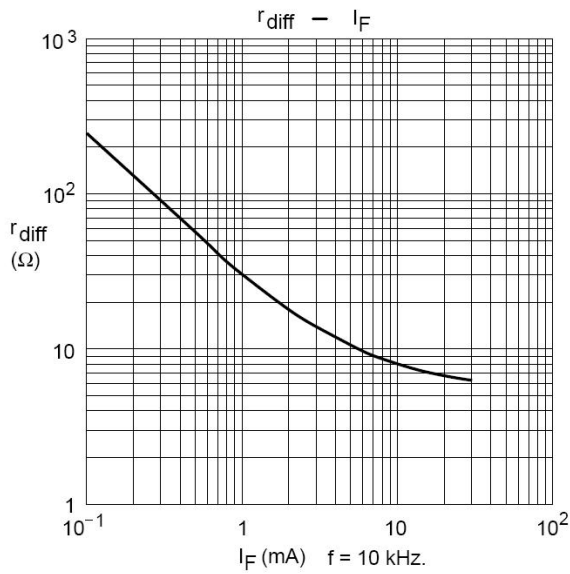
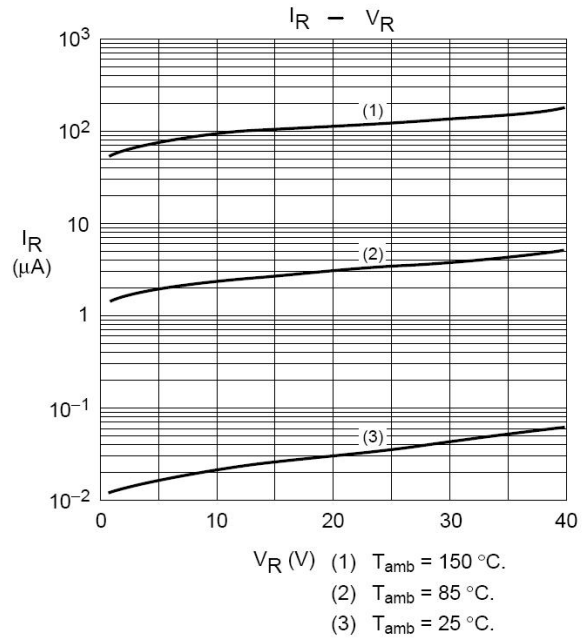
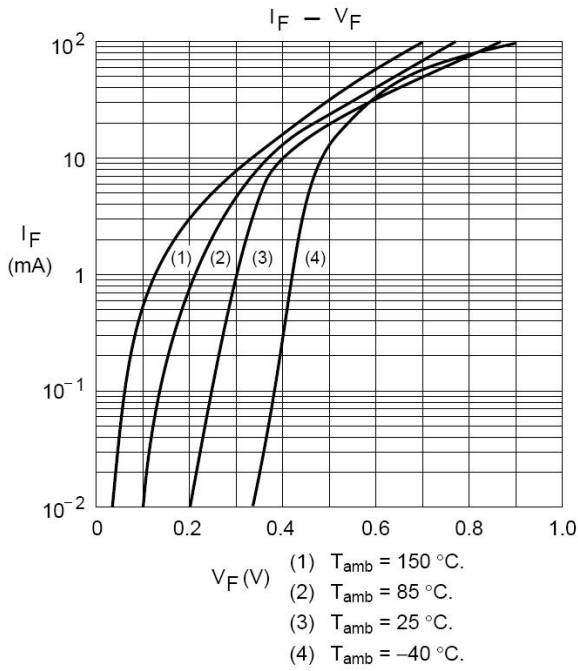
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Repetitive Reverse Voltage	V_R	40	V
Average Rectified Forward Current	I_F	120	mA
Repetitive Peak Forward Surge Current	$I_{FRM} (t_p \leq 1s)$	120	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM} (t_p < 10ms)$	100	mA
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	500	K/W
Junction Temperature	T_j	150	°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	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Forward Voltage	V_F	$I_F=1mA$			380	mV
		$I_F=10mA$			500	mV
		$I_F=40mA$			1.0	V
Instantaneous Reverse Current	I_R	$V_R=30V$			1.0	μA
		$V_R=40V$			10	μA
Diode Capacitance	C_d	$V_R=0$ $f=1MHz$			5	pF

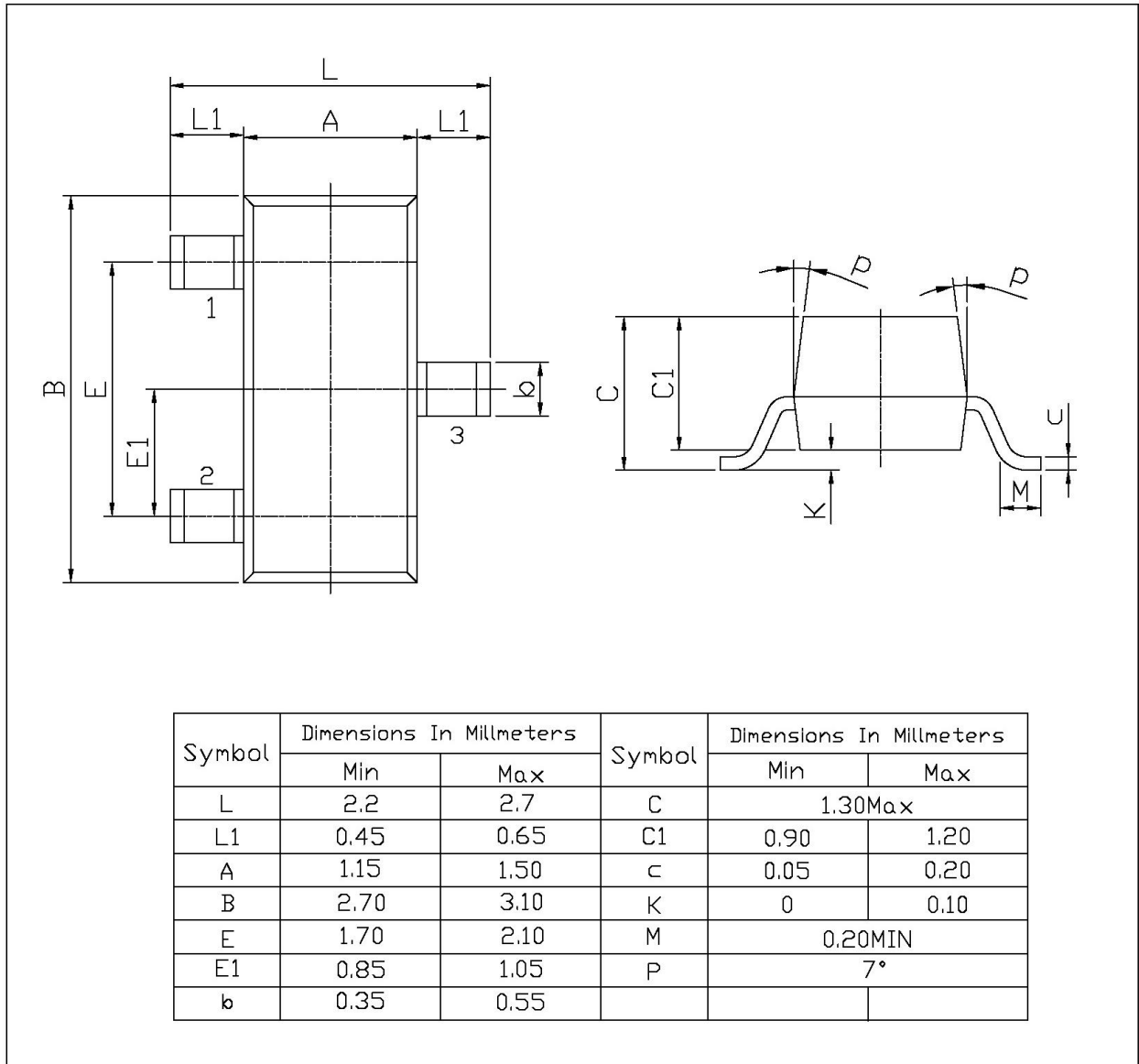
电参数曲线图 / Electrical Characteristic Curve



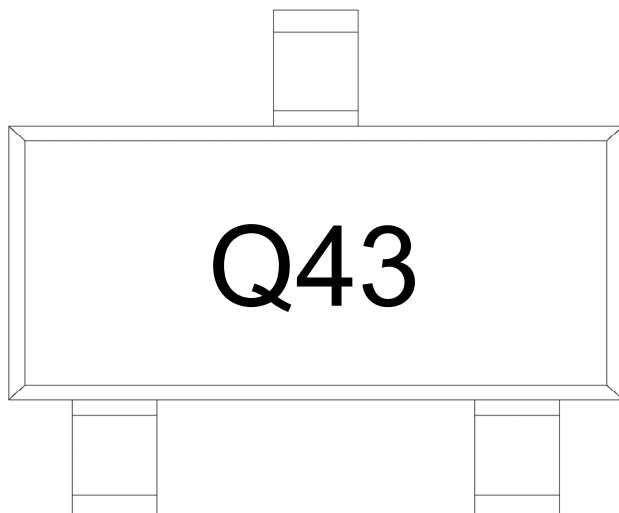
外形尺寸图 / Package Dimensions

SOT-23

单位: mm



印章说明 / Marking Instructions



说明：

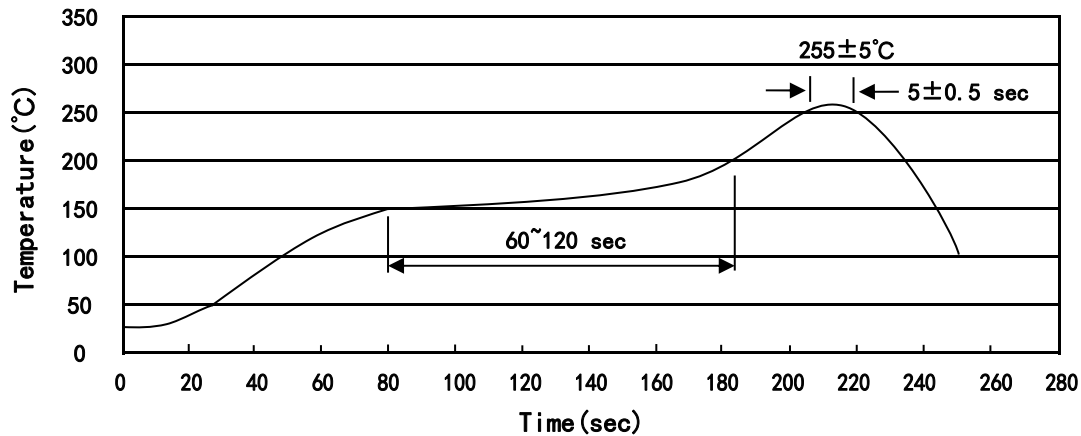
Q： 为汽车无卤产品标识

43： 为型号代码

Note:

Q: Automobile halogen-free product Code

43: 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
SOT-23	3,000	10	30,000	6	180,000	7" x8	180×120×180	390×385×205

使用说明 / Notices