

BR2SA1576AQ

Rev.A Apr.-2023

描述 / Descriptions

SOT-323 塑封封装 PNP 半导体三极管。Silicon PNP transistor in a SOT-323 Plastic Package.

特征 / Features

噪声系数小,与 BR2SC4081WQ 互补,符合 AEC-Q101 标准高可靠性要求,无卤产品。

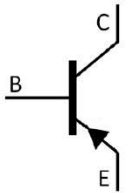
Low noise, complementary pair with BR2SC4081WQ, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

用途 / Applications

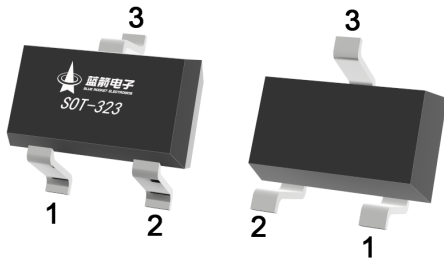
用于一般小信号放大,满足汽车应用的严格要求。

General small signal amplifier applications, Meet the stringent requirements of automotive applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1 : Base

PIN 2 : Emitter

PIN 3 : Collector

放大及印章代码 / h_{FE} Classifications & Marking

h _{FE} Classifications Symbol	Q	R	S
h _{FE} Range	120~270	180~390	270~560
Marking	FQQ	FQR	FQS

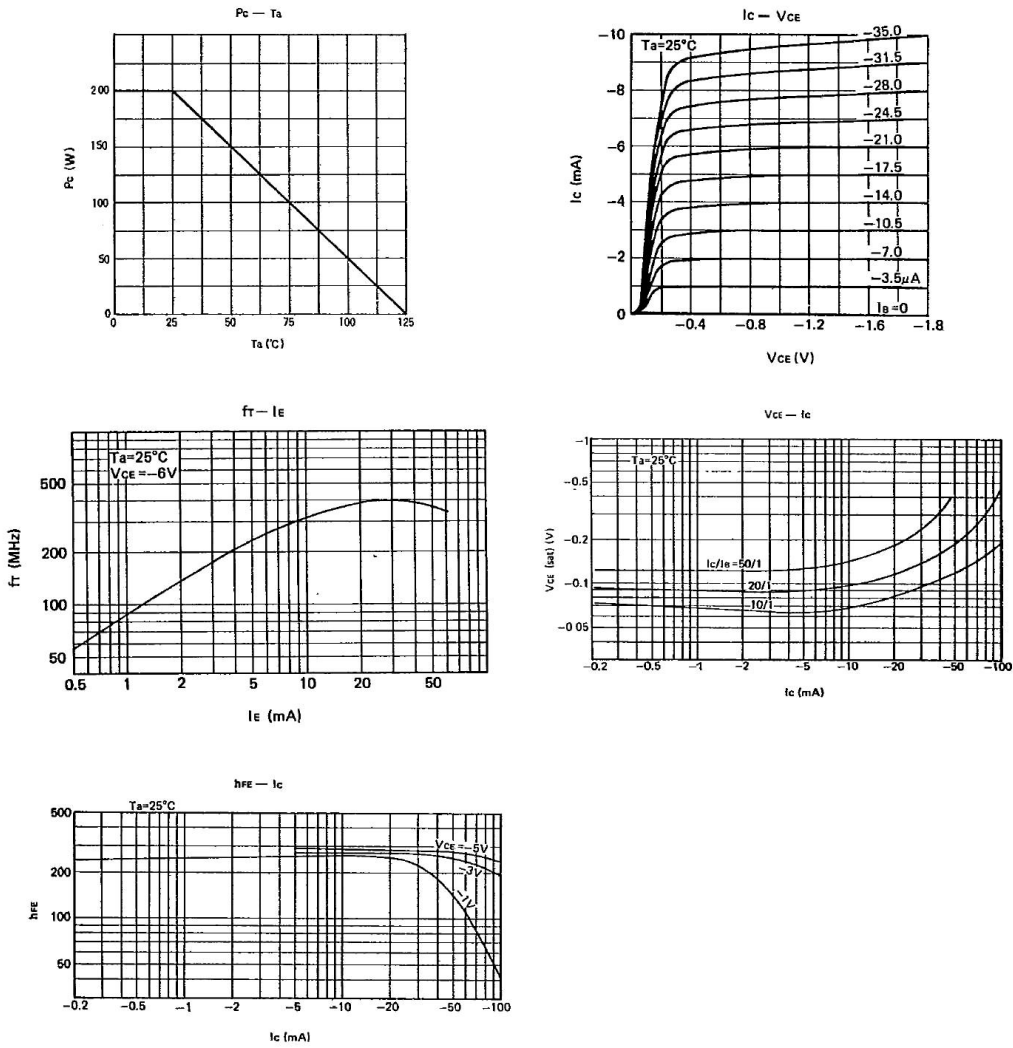
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V _{CBO}	-50	V
Collector to Emitter Voltage	V _{CEO}	-40	V
Emitter to Base Voltage	V _{EBO}	-5	V
Collector Current - Continuous	I _C	-100	mA
Collector Power Dissipation	P _C	200	mW
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
Collector to Base Breakdown Voltage	V _{CBO}	I _C =-50μA I _E =0	-50			V
Collector to Emitter Breakdown Voltage	V _{CEO}	I _C =-1.0mA I _B =0	-40			V
Emitter to Base Breakdown Voltage	V _{EBO}	I _E =-50μA I _C =0	-5			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =-30V I _E =0			-0.5	μA
Emitter Base Cut-Off Current	I _{EBO}	V _{EB} =-4V I _C =0			-0.5	μA
DC Current Gain	h _{FE}	V _{CE} =-6V I _C =-1mA	120		560	
Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C =-50mA I _B =-5mA			-0.5	V
Transition Frequency	f _T	V _{CE} =-12V I _E =2mA		140		MHz
Collector output capacitance	C _{ob}	V _{CB} =-12V f=1.0MHz		3.5		pF

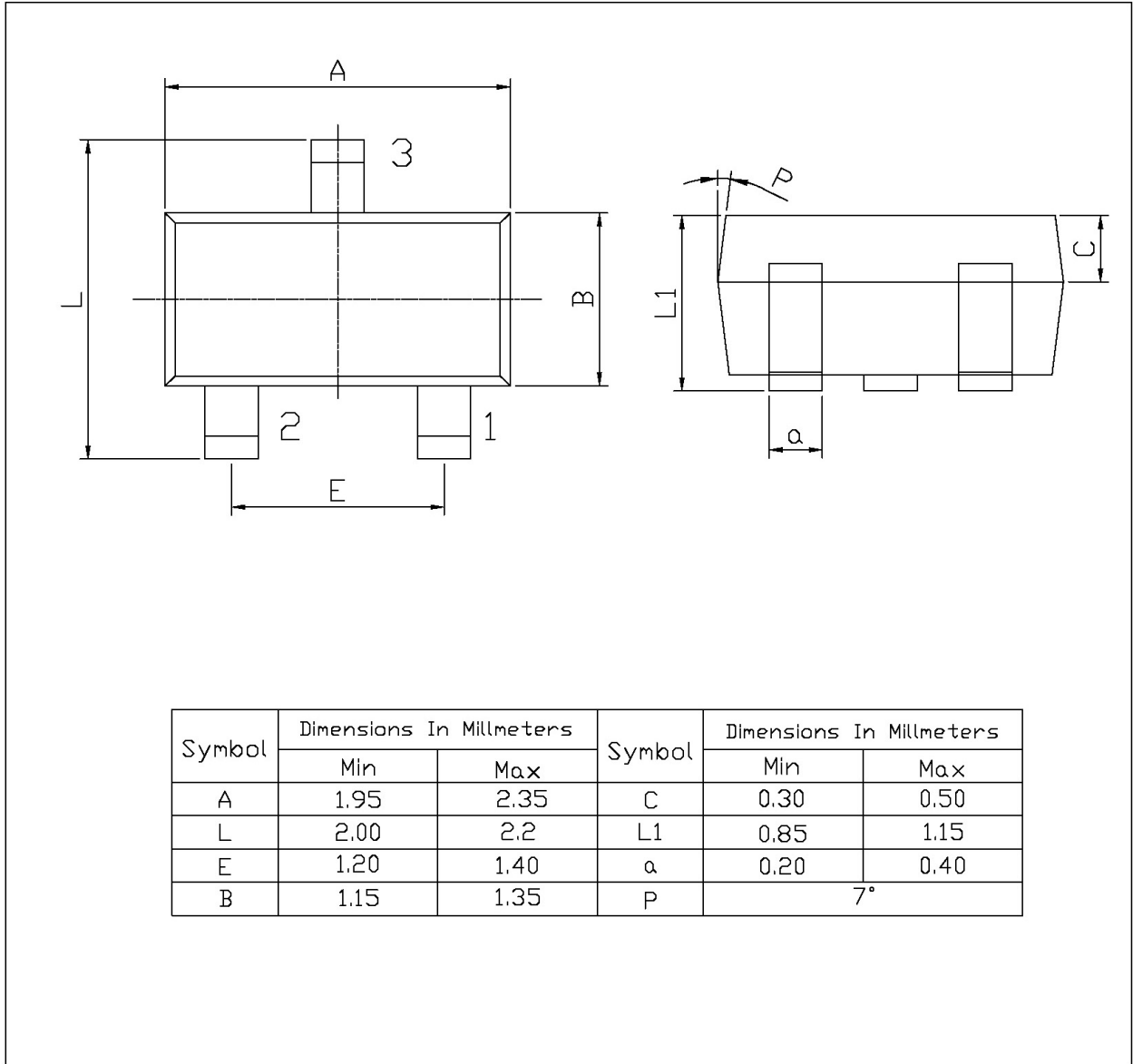
电参数曲线图 / Electrical Characteristic Curve



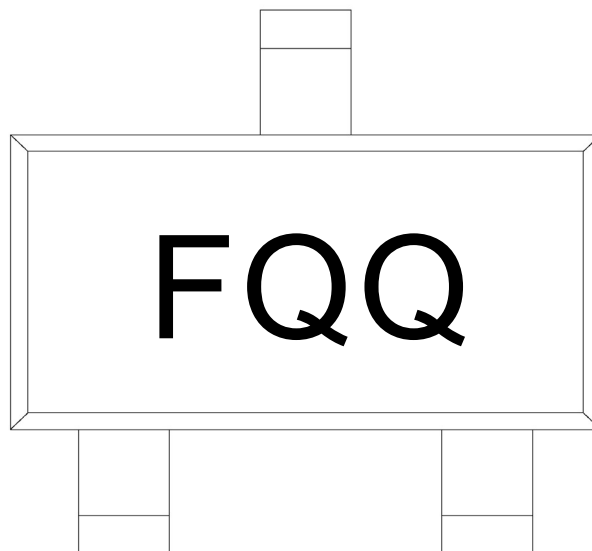
外形尺寸图 / Package Dimensions

SOT-323

单位: mm



印章说明 / Marking Instructions

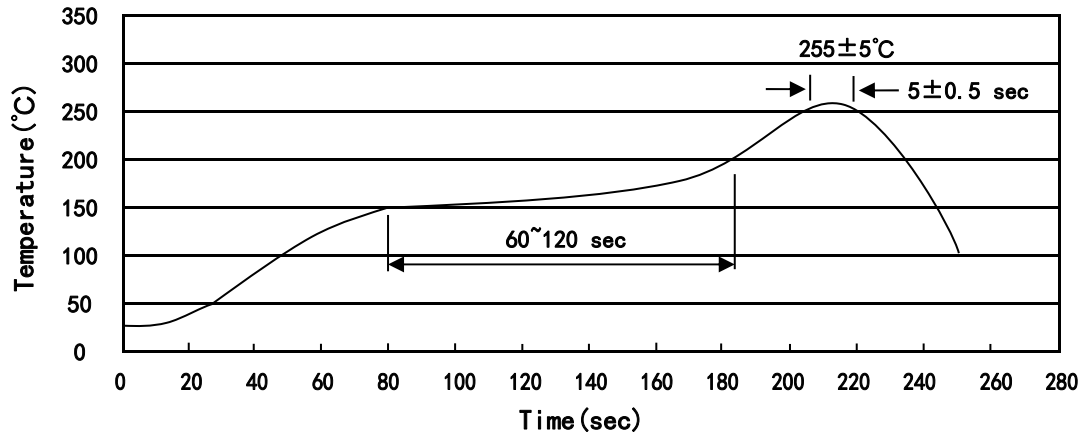


说明：

- F： 为型号代码
- Q： 为汽车无卤产品标识
- Q： 为 h_{FE} 分档代码

Note:

- F: Product Type
- Q: Automobile halogen-free product Code
- Q: h_{FE} Classifications Symbol

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

使用说明 / Notices