

描述 / Descriptions

SOT-23 塑封封装 PNP 半导体三极管。Silicon PNP transistor in a SOT-23 Plastic Package.

特征 / Features

与 BR8050MQ 互补，符合 AEC-Q101 标准高可靠性要求，无卤产品。

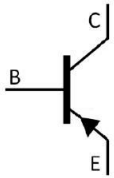
Complementary pair with BR8050MQ, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

用途 / Applications

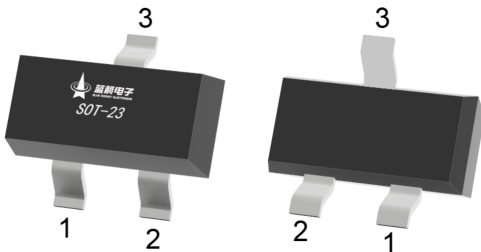
用于功率放大电路，满足汽车应用的严格要求。

Power 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	B	C	D
h _{FE} Range	85~160	120~200	160~300
Marking	QHY2B	QHY2C	QHY2D

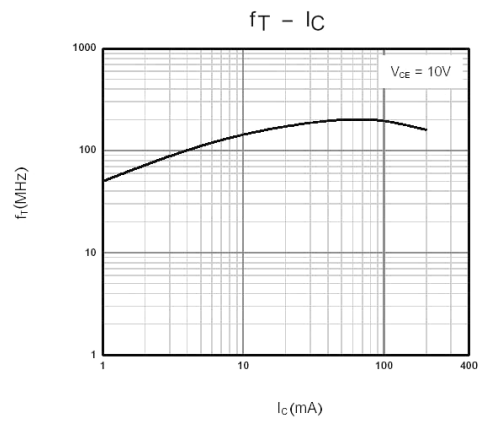
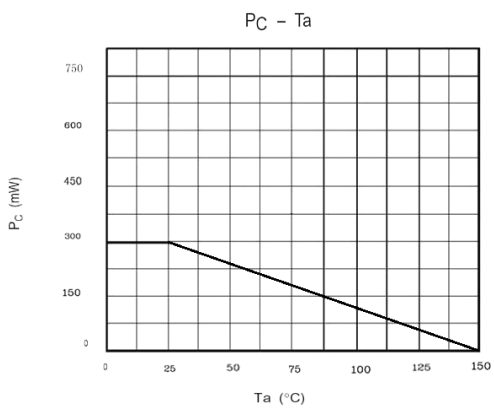
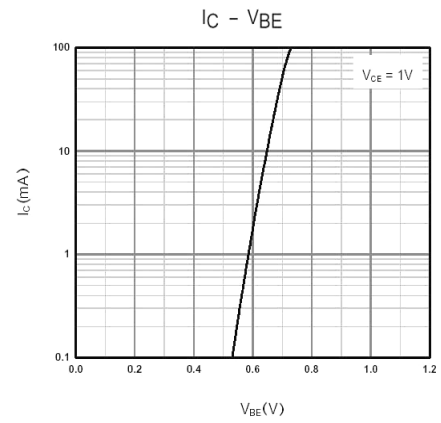
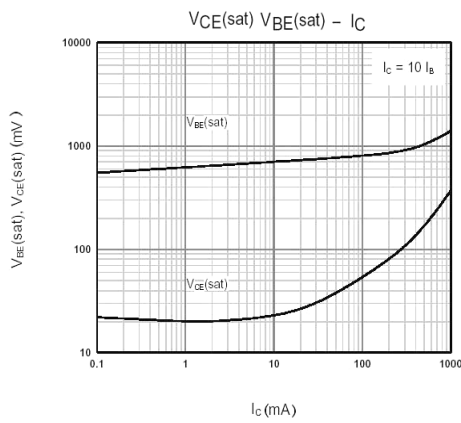
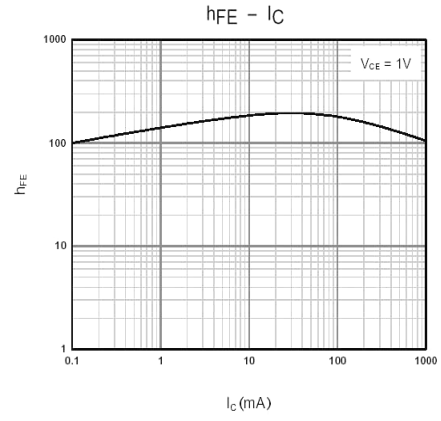
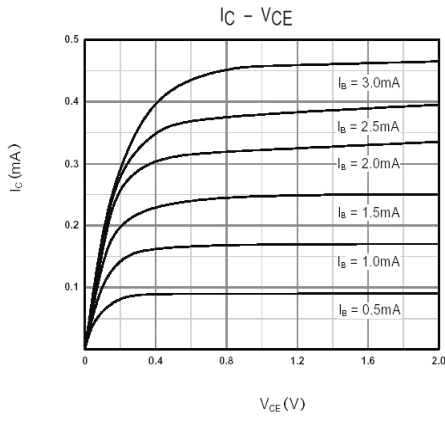
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V _{CBO}	-40	V
Collector to Emitter Voltage	V _{CEO}	-25	V
Emitter to Base Voltage	V _{EBO}	-6.0	V
Collector Current	I _C	-1.5	A
Base Current	I _B	-0.5	A
Collector Power Dissipation	P _C	300	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 =-0.1mA I _E =0	-40			V
Collector to Emitter Breakdown Voltage	V _{CEO}	I _C =-2.0mA I _B =0	-25			V
Emitter to Base Breakdown Voltage	V _{EBO}	I _E =-0.1mA I _C =0	-6.0			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =-35V I _E =0			-0.1	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =-6.0V I _C =0			-0.1	μA
DC Current Gain	h _{FE(1)}	V _{CE} =-1.0V I _C =-100mA	85		300	
	h _{FE(2)}	V _{CE} =-1.0V I _C =-800mA	40			
	h _{FE(3)}	V _{CE} =-1.0V I _C =-5.0mA	45			
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-800mA I _B =-80mA		-0.28	-0.5	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =-800mA I _B =-80mA		-0.98	-1.2	V
Base-Emitter Voltage	V _{BE}	V _{CE} =-1.0V I _C =-10mA		-0.66	-1.0	V
Transition Frequency	f _T	V _{CE} =-10V I _C =-50mA	100	200		MHz
Collector Output Capacitance	C _{ob}	V _{CB} =-10V I _E =0 f=1.0MHz		15		pF

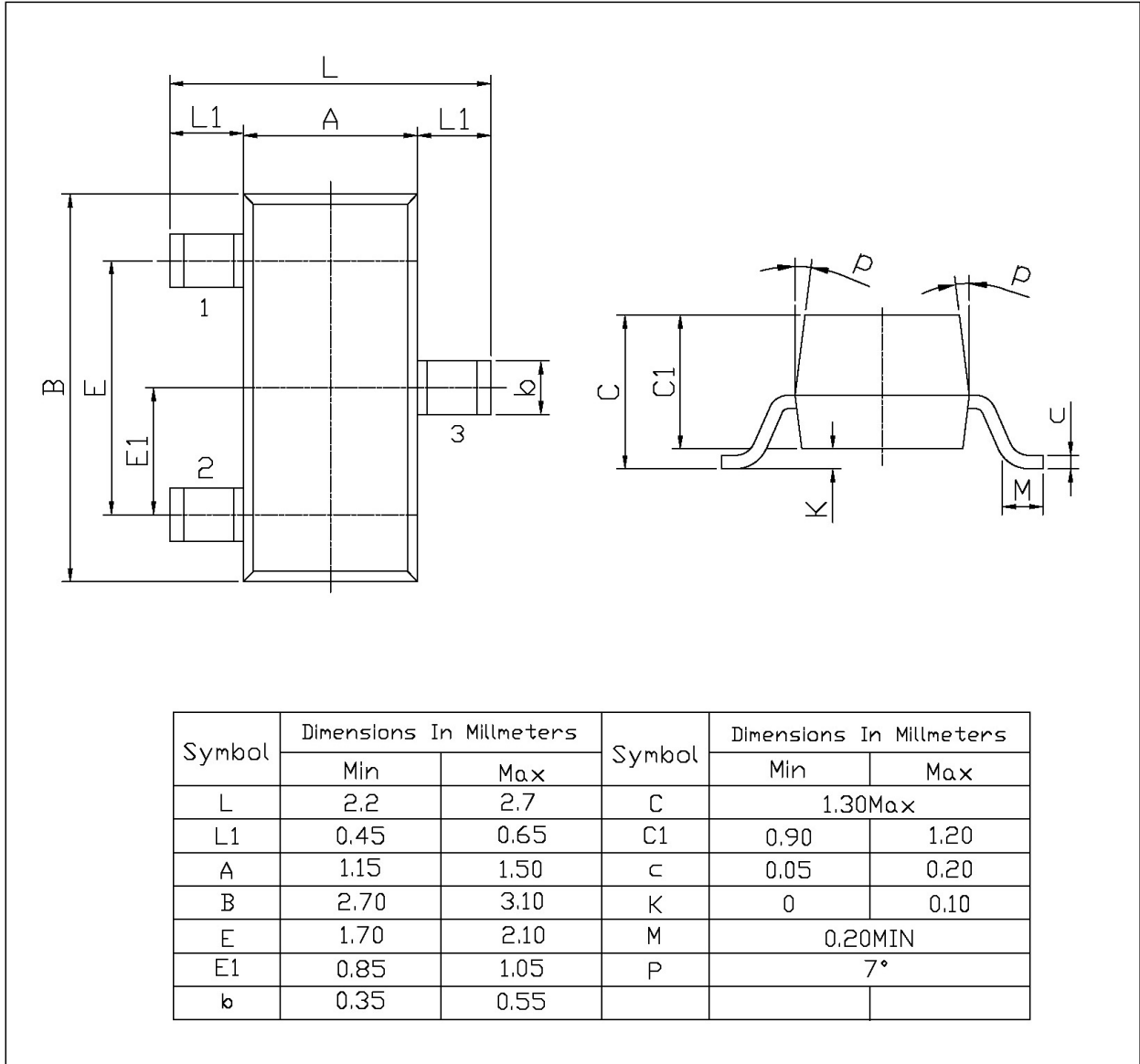
电参数曲线图 / Electrical Characteristic Curve



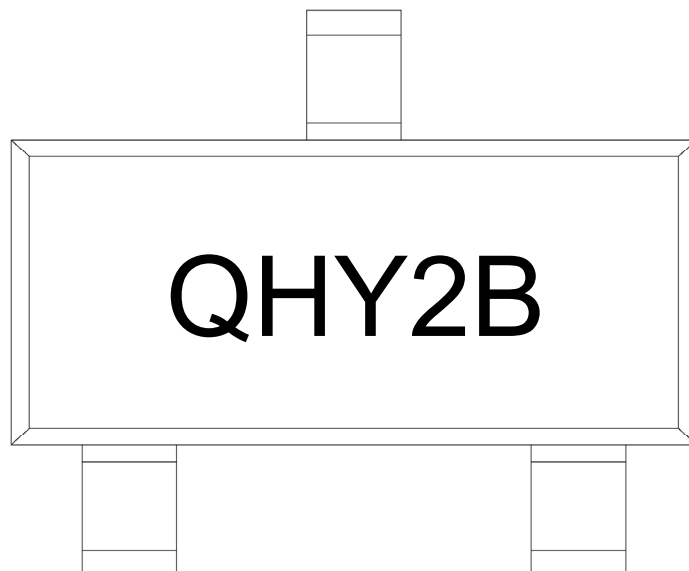
外形尺寸图 / Package Dimensions

SOT-23

单位: mm



印章说明 / Marking Instructions



说明：

Q： 为汽车无卤产品标识

H： 为公司代码

Y2： 为型号代码

B： 为 hFE 档次代码

Note:

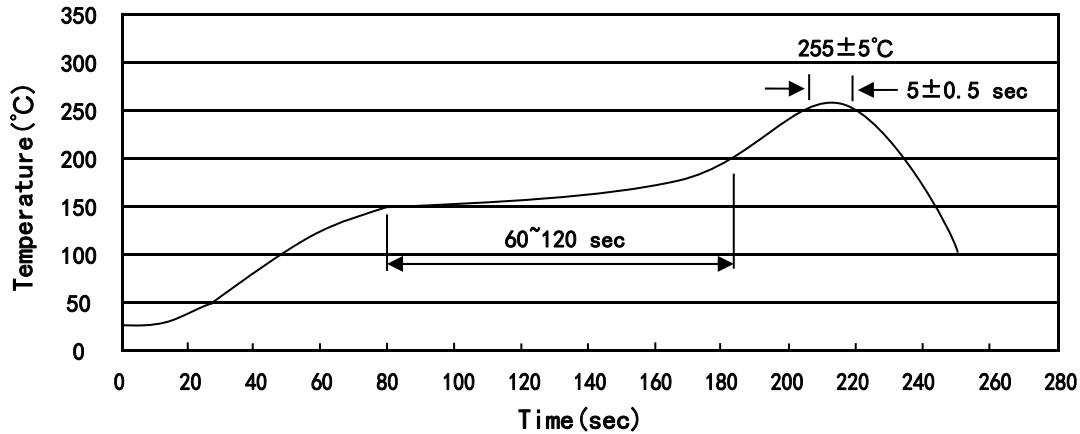
Q: Automobile halogen-free product Code

H: Company Code

Y2: Product Type Code

B: hFE Classifications Symbol 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
SOT-23	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

使用说明 / Notices