

BC857

Rev.1 Apr.-2023

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

低电流，低电压，无卤产品。

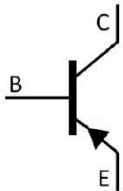
Low current, Low voltage, HF product.

用途 / Applications

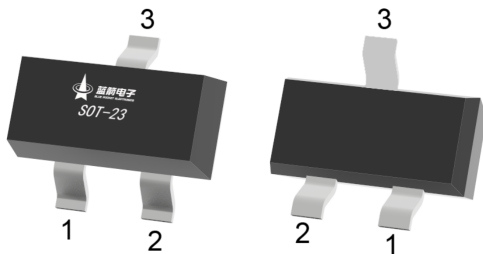
用于一般放大。

General power amplifier application.

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	A	B	C
h _{FE} Range	125~250	220~475	420~800
Marking	H3E	H3F	H3G

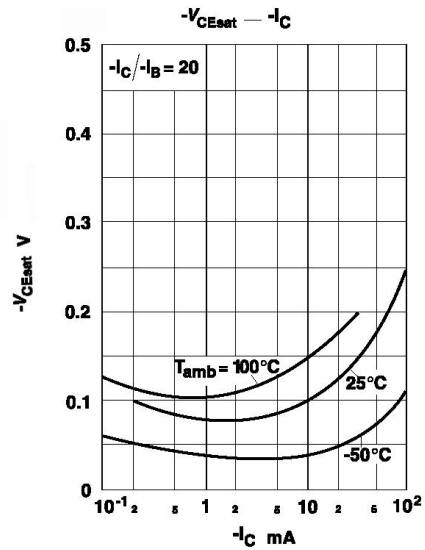
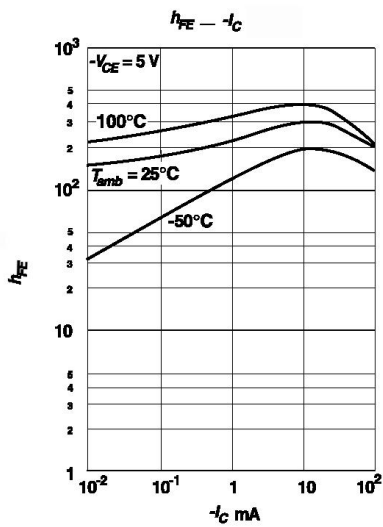
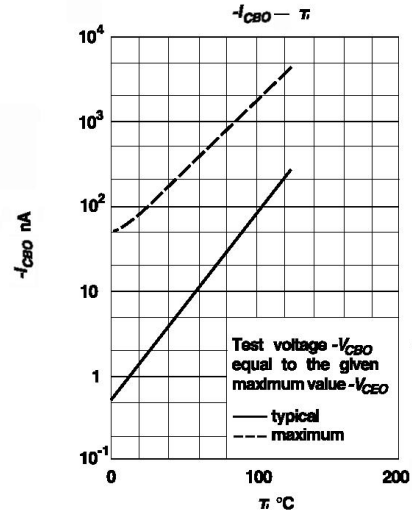
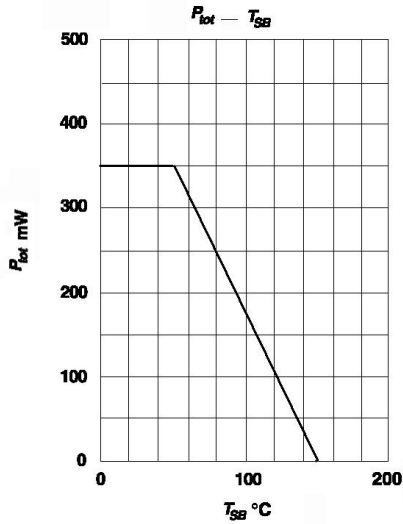
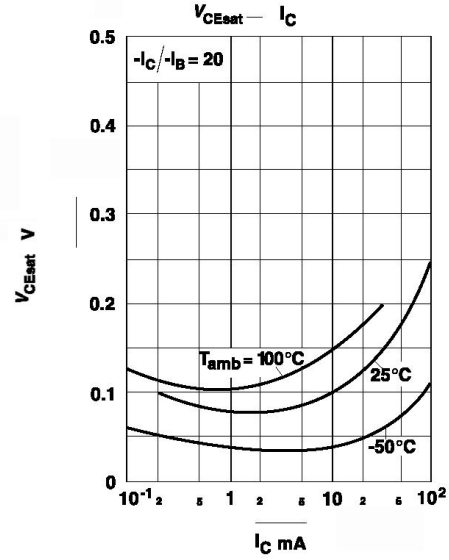
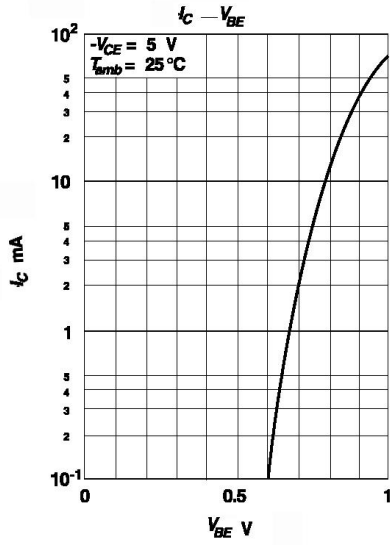
极限参数 / Absolute Maximum Ratings(Ta=25°C)

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}	-45	V
Emitter to Base Voltage	V _{EBO}	-5.0	V
Collector Current - Continuous	I _C	-100	mA
Collector Power Dissipation	P _C	350	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 Cut-Off Current	I _{CBO}	V _{CB} =-30V I _E =0			-0.015	μA
DC Current Gain	h _{FE}	V _{CE} =-5.0V I _C =-2.0mA	125		800	
Collector to Emitter Saturation Voltage	V _{CE(sat)(1)}	I _C =-10mA I _B =-0.5mA		-0.09	-0.3	V
	V _{CE(sat)(2)}	I _C =-100mA I _B =-5.0mA		-0.25	-0.65	V
Base to Emitter Saturation Voltage	V _{BE(sat)(1)}	I _C =-10mA I _B =-0.5mA		-0.7		V
	V _{BE(sat)(2)}	I _C =-100mA I _B =-5.0mA		-0.9		V
Base to Emitter On Voltage	V _{BE(ON)(1)}	V _{CE} =5.0V I _C =2.0mA	-0.6	-0.65	-0.75	V
	V _{BE(ON)(2)}	V _{CE} =5.0V I _C =10mA			-0.82	V
Transition Frequency	f _T	V _{CE} =5.0V I _C =10mA f=100MHz		150		MHz
Collector Output Capacitance	C _{ob}	V _{CB} =10V I _E =0 f=1.0MHz		4.5		pF
Noise Figure	NF	V _{CE} =6.0V I _C =0.1mA R _g =10KΩ f=1.0KHz		2.0	10	dB

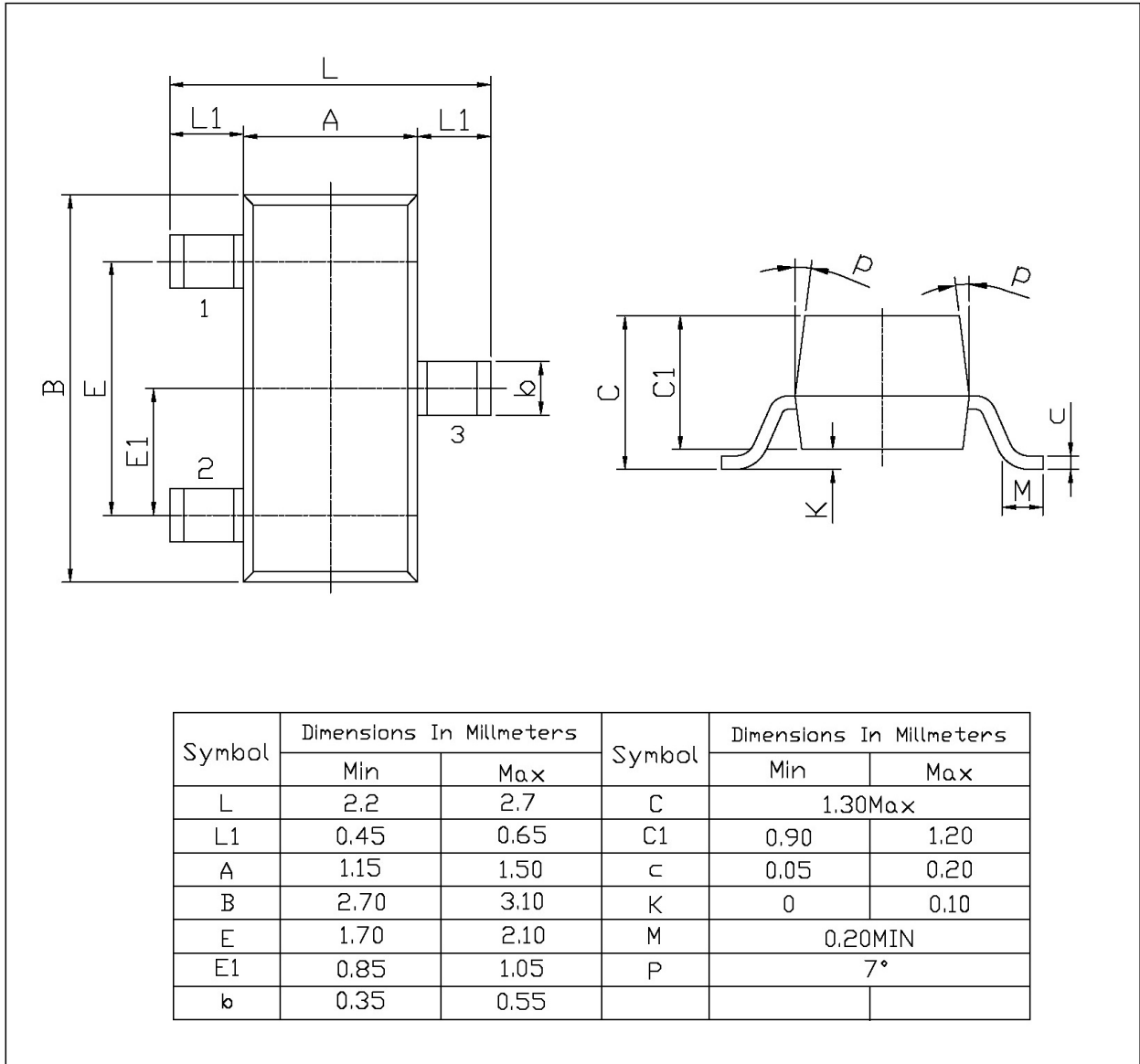
电参数曲线图 / Electrical Characteristic Curve



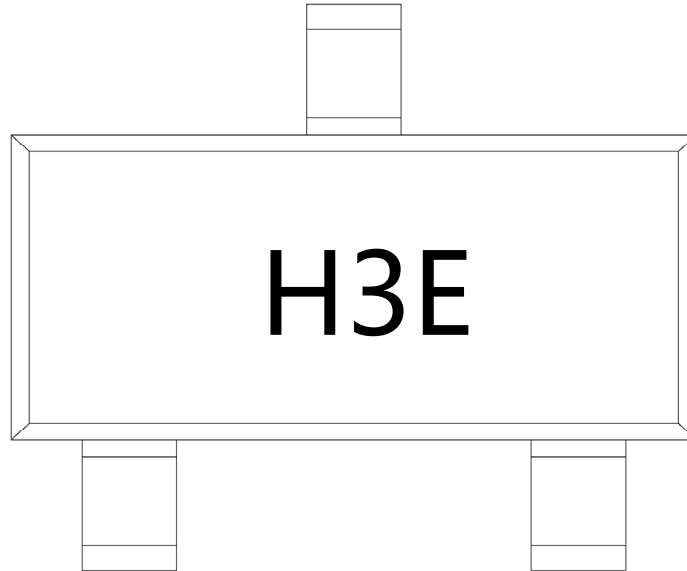
外形尺寸图 / Package Dimensions

SOT-23

单位: mm



印章说明 / Marking Instructions



说明：

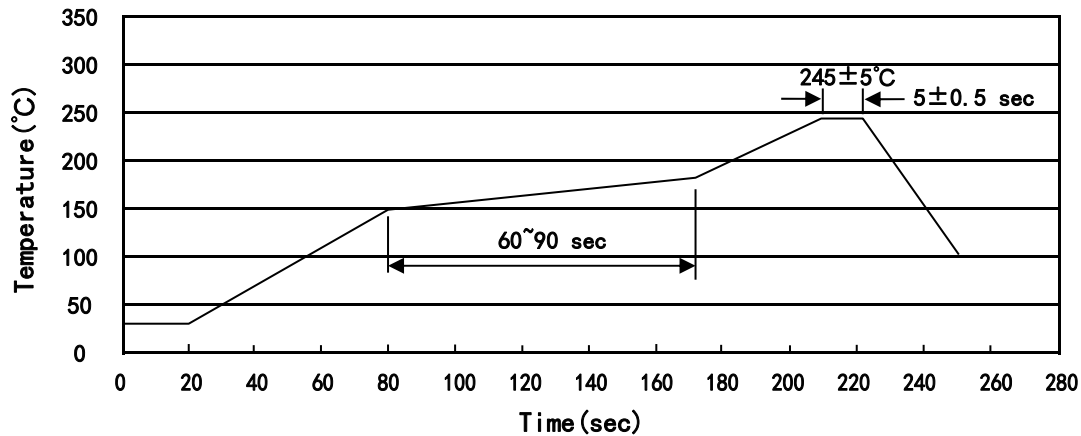
H： 为公司代码

3E： 为型号代码

Note:

H: Company Code

3E: 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 150~180°C，时间 60~90sec;
- 2、峰值温度 245±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:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±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