

描述 / Descriptions

SOT-89 塑封封装 NPN 半导体三极管。Silicon NPN transistor in a SOT-89 Plastic Package.

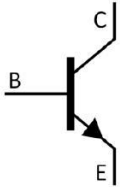
特征 / Features

与 8550T 互补，无卤产品。
Complementary pair with 8550T, HF Product.

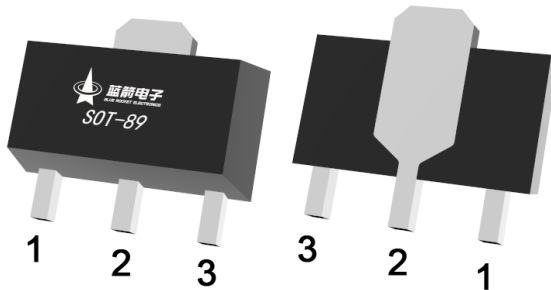
用途 / Applications

用于功率放大电路。
Power amplifier applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1 : Base PIN 2 : Collector PIN 3 : Emitter

印章代码 / Marking

h _{FE} Classifications Symbol	B	C	D
h _{FE} Range	85~160	120~200	160~300
Marking	HY1B *	HY1C *	HY1D *

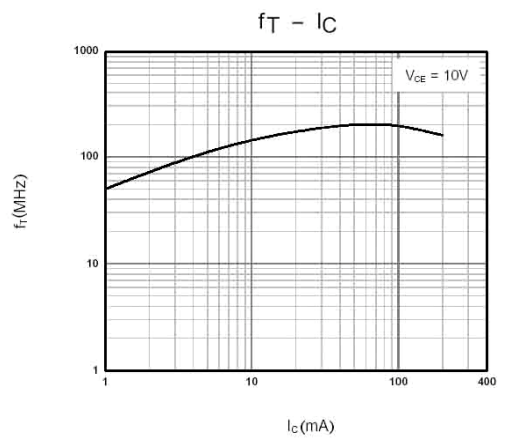
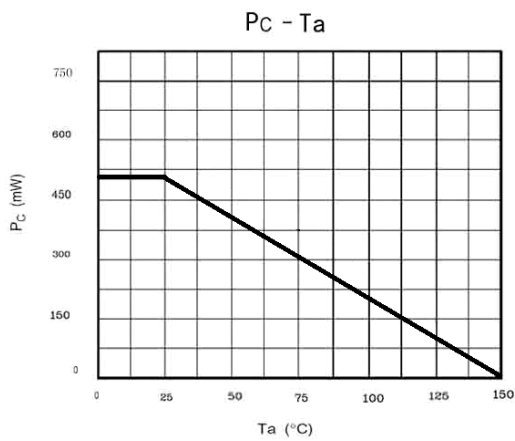
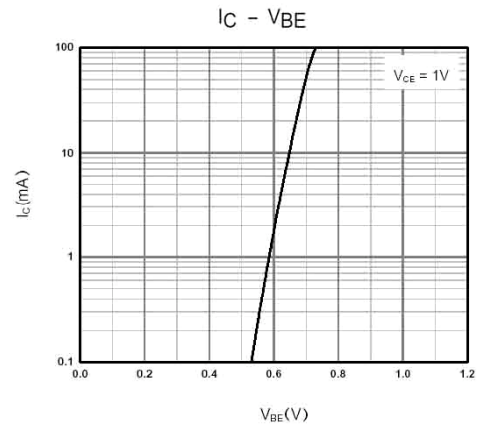
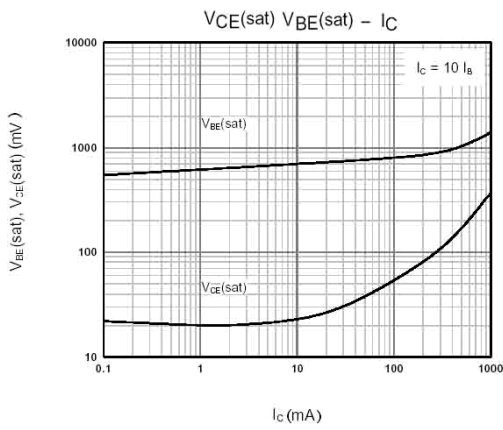
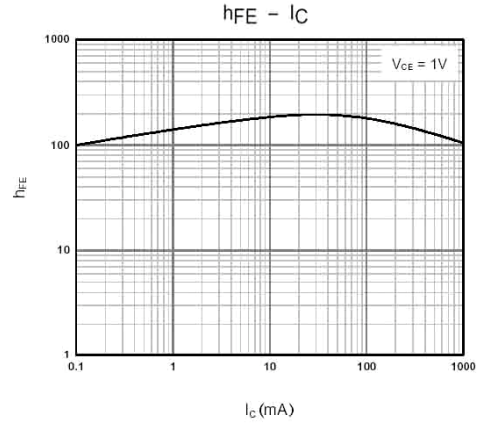
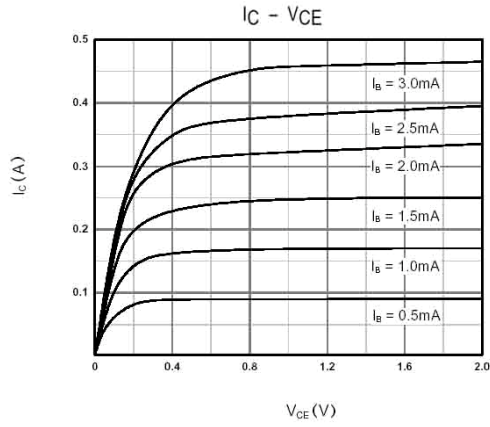
极限参数 / Absolute Maximum Ratings(Ta=25°C)

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 - Continuous	I _C	1.5	A
Collector Base - Continuous	I _B	0.5	A
Collector Power Dissipation	P _C	500	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 Base 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 to Emitter Saturation Voltage	V _{CE(sat)}	I _C =800mA I _B =80mA		0.28	0.5	V
Emitter to Base Saturation Voltage	V _{BE(sat)}	I _C =800mA I _B =80mA		0.98	1.2	V
Emitter to Base 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	190		MHz
Collector Output Capacitance	C _{ob}	V _{CB} =10V I _E =0 f=1.0MHz		9.0		pF

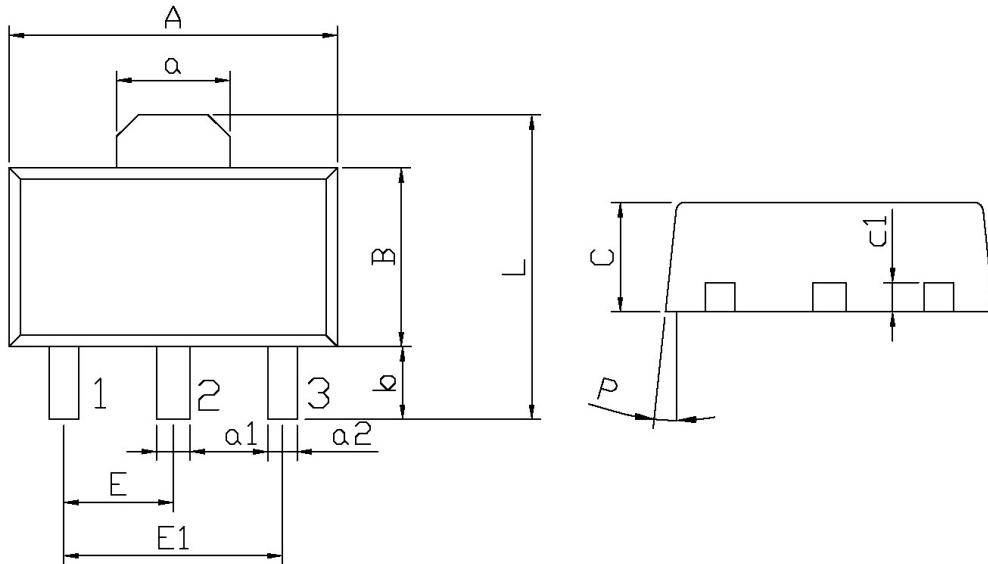
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

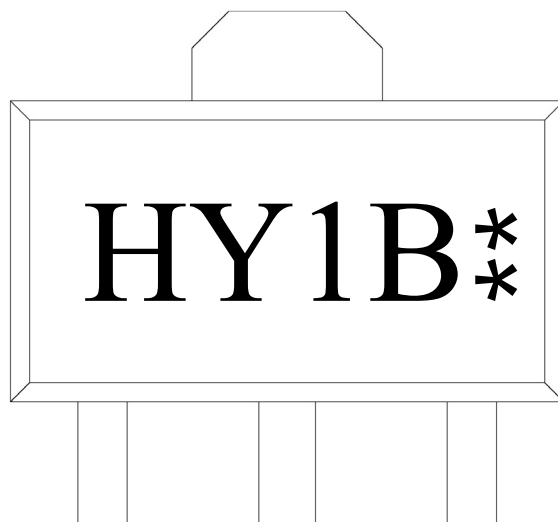
SOT-89

单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	4.4	4.7	a1	0.36	0.56
B	2.35	2.65	a2	0.30	0.50
L	3.878	4.478	C	1.40	1.70
a	1.45	1.65	c1	0.35	0.50
E	1.40	1.60	P	6°	
E1	2.80	3.20			
b	0.80	1.20			

印章说明 / Marking Instructions



说明：

H： 为公司代码

Y1： 为型号代码

B： 为 h_{FE} 分档代码

**： 为生产批号代码，随生产批号变化

Note:

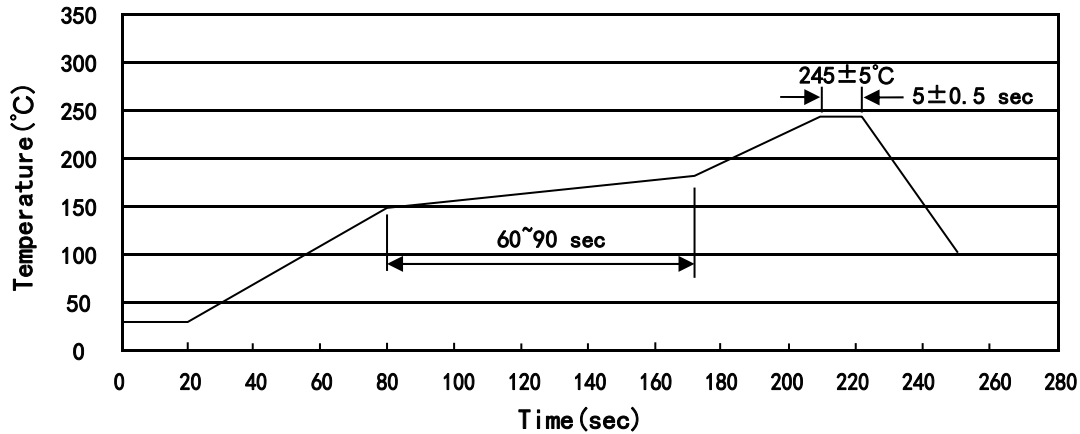
H: Company Code

Y1: Product Type

B: h_{FE} Classifications Symbol

** : Lot No. Code, code change with Lot No

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-89	1,000	7	7,000	6	42,000	7" ×12	180×120×180	390×385×205

使用说明 / Notices