描述 / Descriptions

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

特征 / Features

特征频率高，电压高,封装小，与 2SC2881 互补。

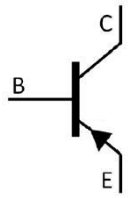
High f_T, high V_{CEO}, small flat package, complementary pair with 2SC2881.

用途 / Applications

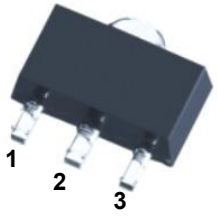
用于一般功率放大。

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	O	Y
h_{FE} Range	80～160	120～240
Marking	HDO ※※	HDY ※※

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

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V_{CBO}	-120	V
Collector to Emitter Voltage	V_{CEO}	-120	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current-Continuous	I_C	-800	mA
Collector Base-Continuous	I_B	-160	mA
Collector Power Dissipation	P_C	500	mW
Collector Power Dissipation*	$*P_C$	1.0	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

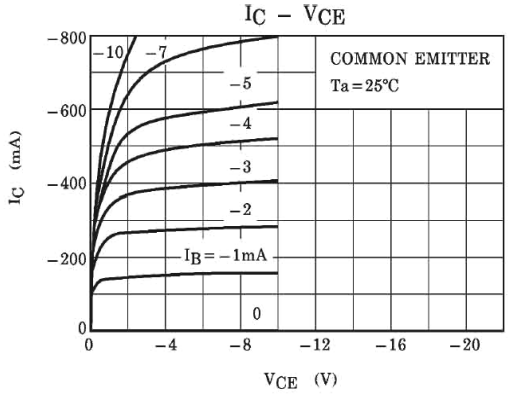
*mounted on ceramic substrate(250mm^2×0.8t)
*贴装于 250mm^2×0.8t 的陶瓷板上。

电性能参数 / Electrical Characteristics(Ta=25℃)

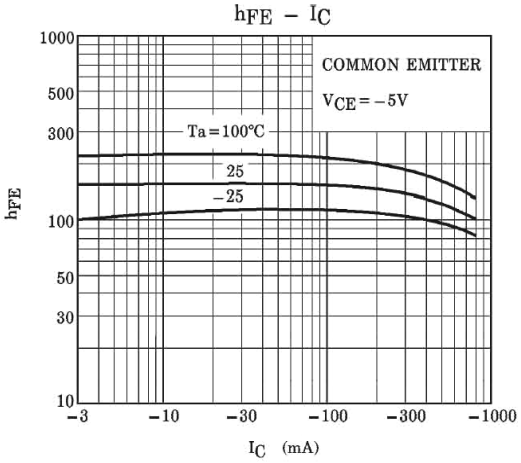
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=-10mA I_B=0	-120			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_C=-1.0mA I_C=0	-5.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-120V I_E=0			-0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=-5.0V I_C=0			-0.1	μA
DC Current Gain	h_{FE}	V_{CE}=-5.0V I_C=-100mA	80		240	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-500mA I_B=-50mA			-1.0	V
Collector to Base Voltage	V_{BE}	V_{CE}=-5.0V I_C=-500mA			-1.0	V
Transition Frequency	f_T	V_{CE}=-5.0V I_C=-100mA		120		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V I_E=0 f=1.0MHz			30	pF

电参数曲线图 / Electrical Characteristic Curve

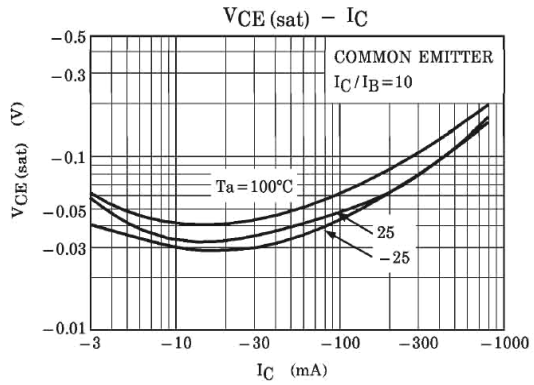
I_C – V_{CE}



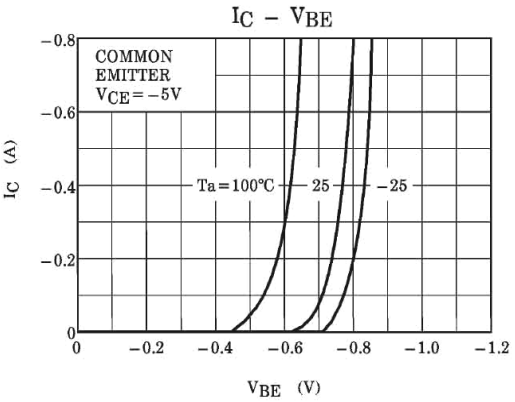
h_{FE} – I_C

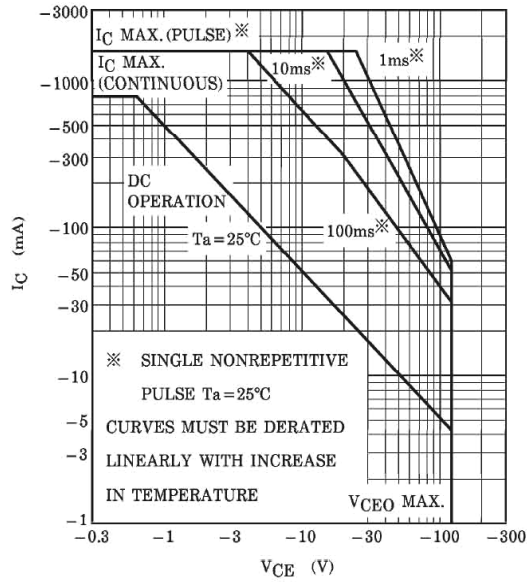


$V_{CE\,(sat)}$ – I_C

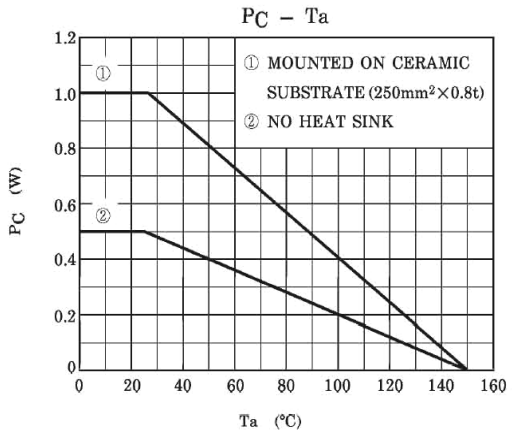


I_C – V_{BE}





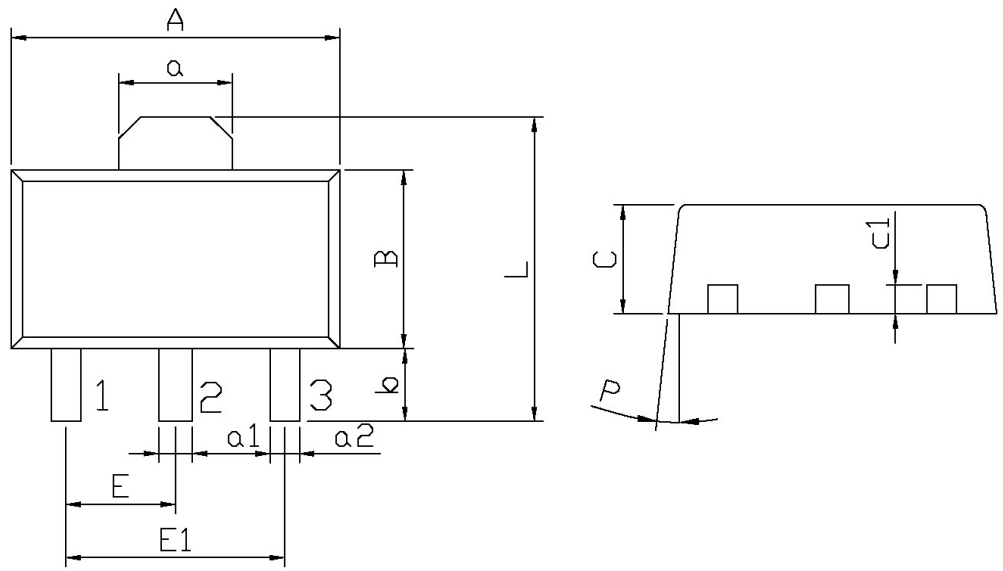
P_C – Ta



外形尺寸图 / Package Dimensions

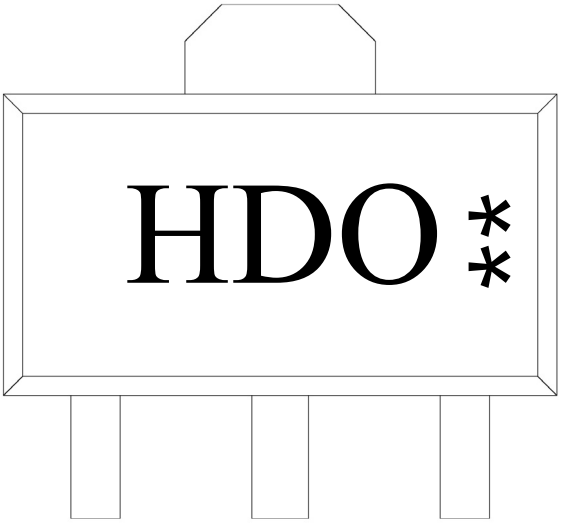
SOT-89

单位：mm



Symbol	Dimensions In Millmeters		Symbol	Dimensions In Millmeters	
	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

D： 为型号代码

O： 为 h_{FE} 分档代码

**： 为生产批号代码，随生产批号变化。

Note:

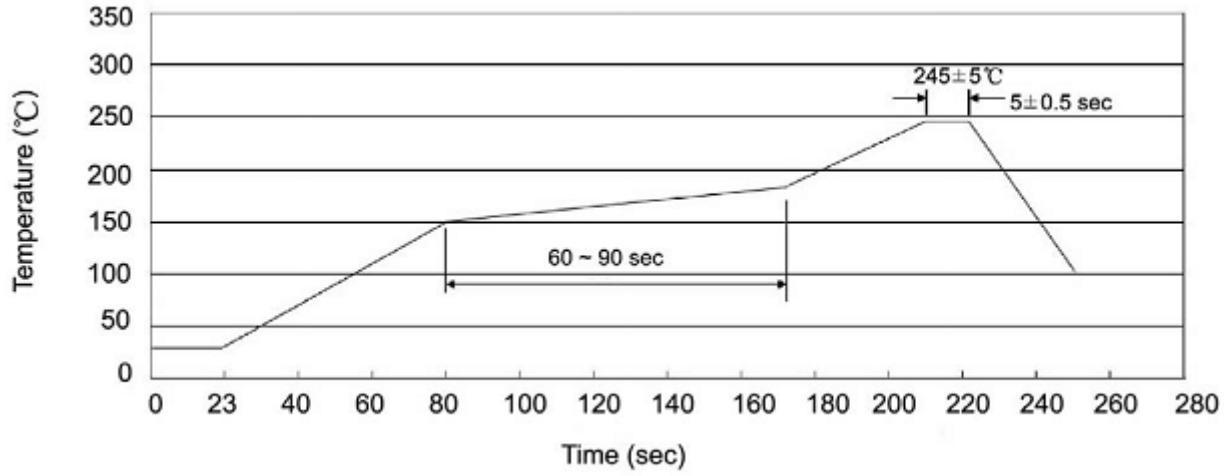
H: Company Code.

D: Product Type.

O: 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 25～150℃，时间 60～90sec;

2、峰值温度 245±5℃，时间持续为 5±0.5sec;

3、焊接制程冷却速度为 2～10℃/sec.

Note:

1.Preheating:25~150℃, Time:60~90sec.

2.Peak Temp.:245±5℃, Duration:5±0.5sec.

3. Cooling Speed: 2~10℃/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5℃　　时间：10±1 sec.　　Temp.:260±5℃　　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	8	56,000	7″ ×12	180×120×180	385×257×392

使用说明 / Notices