

描述 / Descriptions

SOP-8 塑封封装 硅 NPN 半导体三极管。
Silicon NPN Transistor in a SOP-8 Plastic Package.

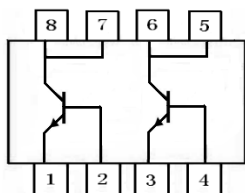
特征 / Features

低噪声,高直流电流增益,高击穿电压。
Low noise, high DC current gain, high breakdown voltage.

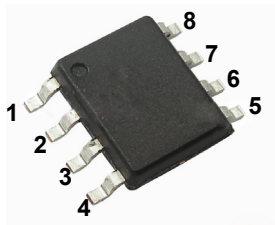
用途 / Applications

用于低噪声音频放大。
Low noise audio amplifier applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN 1 : E1 PIN 2 : B1 PIN 3 : E2 PIN 4 : B2
PIN 5 : C2 PIN 6 : C2 PIN 7 : C1 PIN 8 : C1

印章代码 / Marking

h_{FE} Range	B	GR	BL
Marking	100~300	200~400	350~700

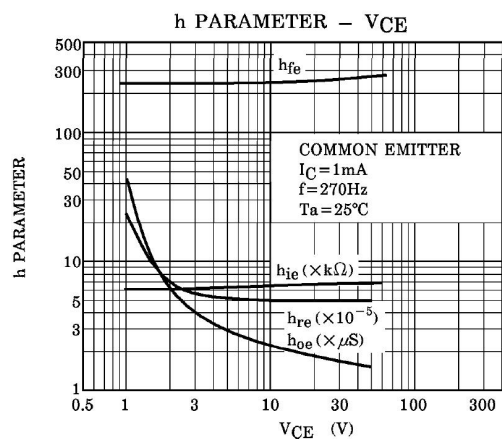
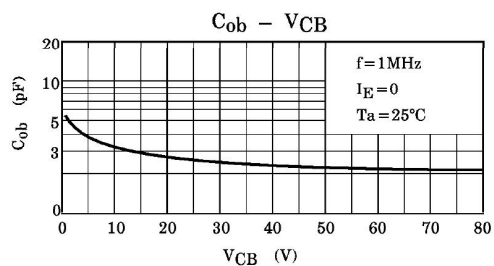
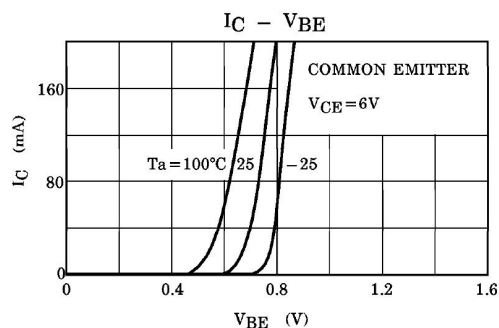
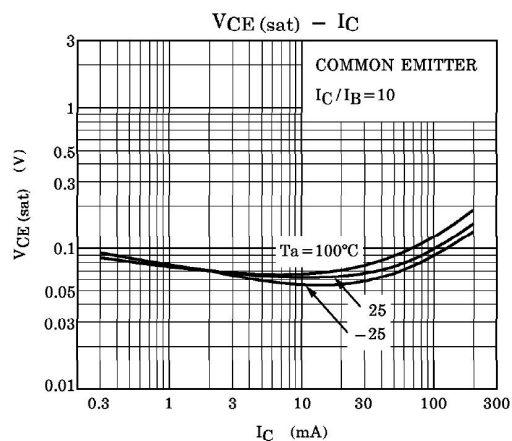
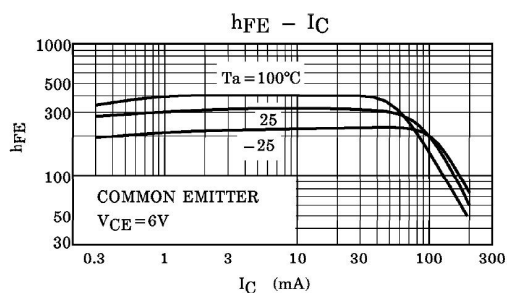
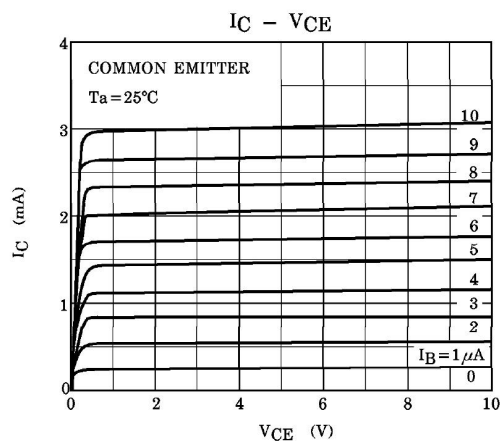
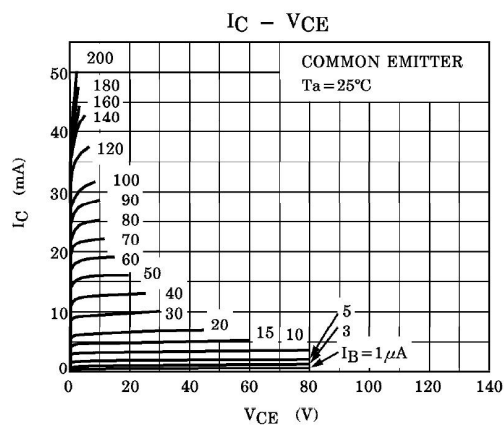
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V_{CBO}	120	V
Collector to Emitter Voltage	V_{CEO}	120	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	100	mA
Collector Emitter – Continuous	I_E	-100	mA
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 Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$ $I_B=0$	120			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}	$V_{CE}=6.0V$ $I_C=2.0mA$	100		700	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA$ $I_B=1.0mA$			0.3	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=6.0V$ $I_C=2.0mA$		0.65		V
Transition Frequency	f_T	$V_{CE}=6.0V$ $I_C=1.0mA$		100		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1.0MHz$		3.0		pF
Noise Figure	NF	$V_{CE}=6.0V$ $I_C=0.1mA$ $f=10Hz$ $R_g=10K\Omega$			6.0	dB
		$V_{CE}=6.0V$ $I_C=0.1mA$ $f=1KHz$ $R_g=10K\Omega$			2.0	
		$V_{CE}=6.0V$ $I_C=0.1mA$ $f=1KHz$ $R_g=100\Omega$		4.0		

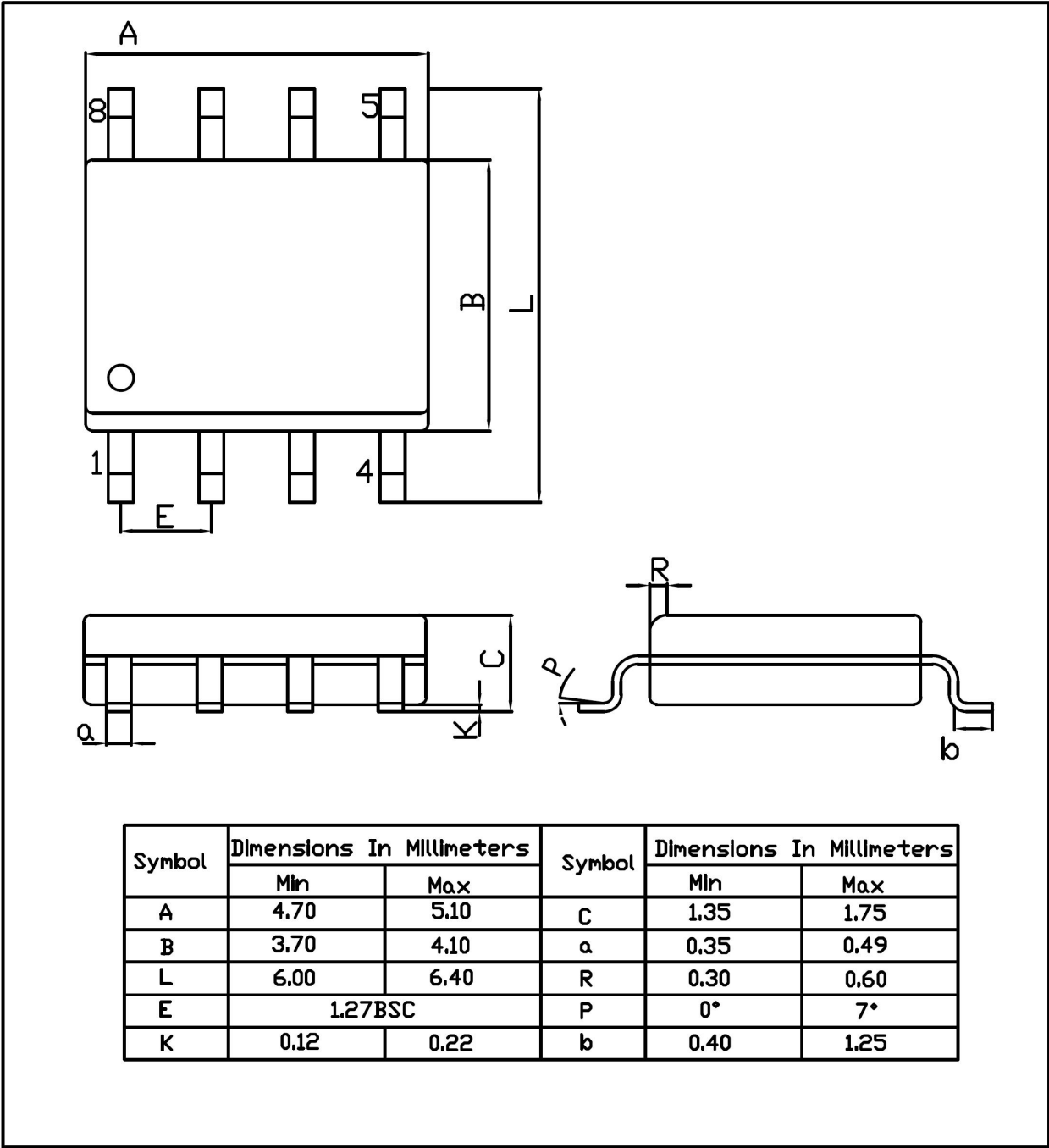
电参数曲线图 / Electrical Characteristic Curve



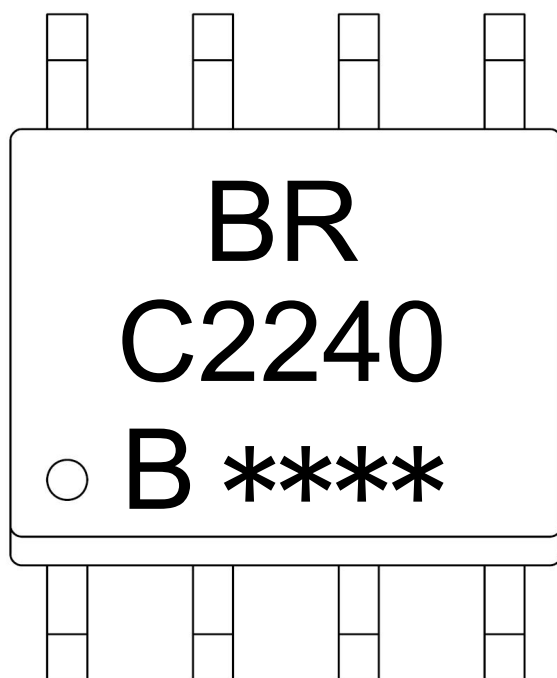
外形尺寸图 / Package Dimensions

SOP-8

Unit:mm



印章说明 / Marking Instructions



说明：

BR： 为公司代码

C2240： 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:

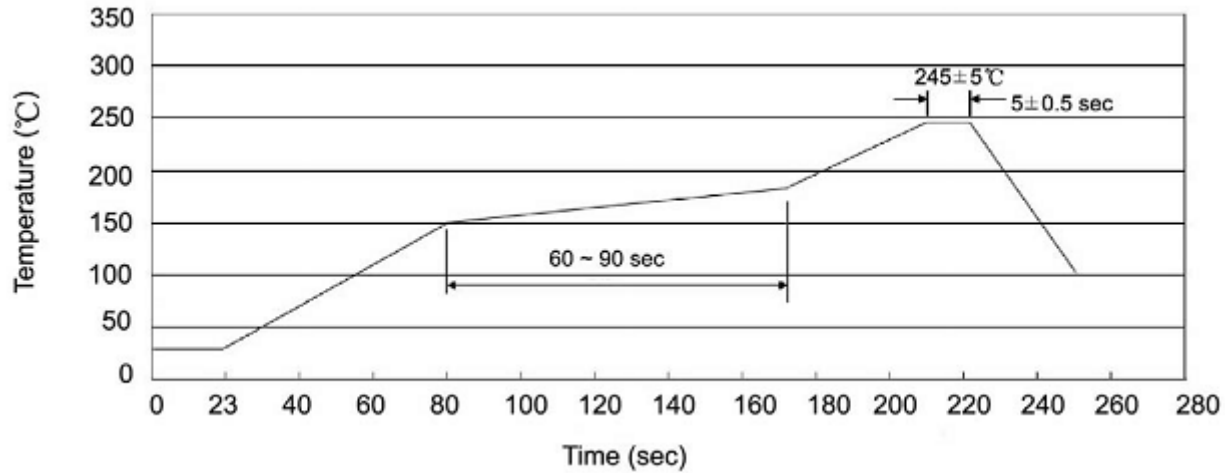
BR: Company Code.

C2240: 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 25 ~ 150°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:25~150°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
SOP/ESOP-8	4,000	2	8,000	5	40,000	13" ×16	360×360×50	385×257×392

使用说明 / Notices