

### 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.

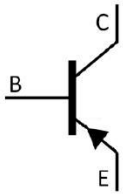
### 特征 / Features

低电流，低电压，小封装，无卤产品。  
Low current ,Low voltage ,S-mini package, 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



PIN 1 : Base      PIN 2 : Emitter      PIN 3 : Collector

### 放大及印章代码 / $h_{FE}$ Classifications & Marking

$h_{FE}$ Classifications Symbol	A	B
$h_{FE}$ Range	125 ~ 250	220 ~ 475
Marking	G3A	G3B

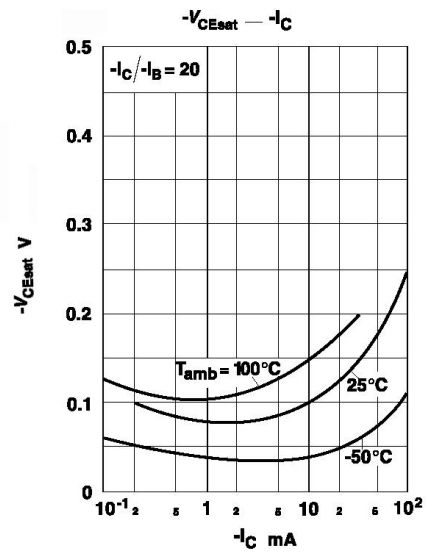
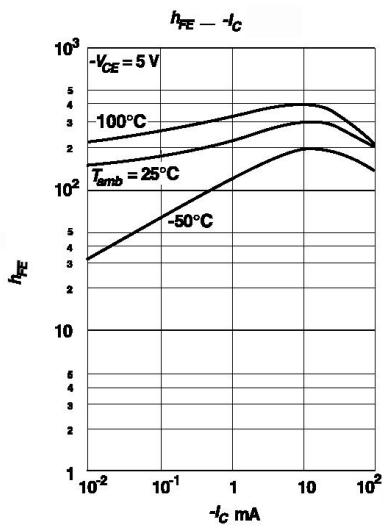
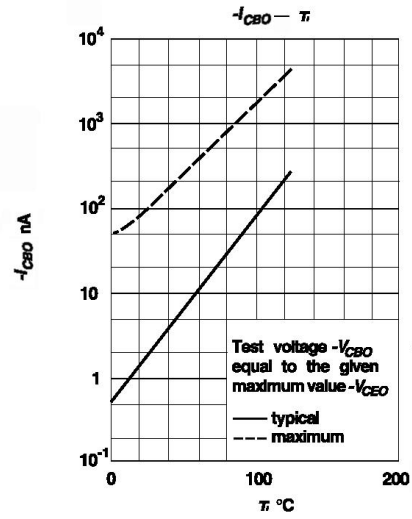
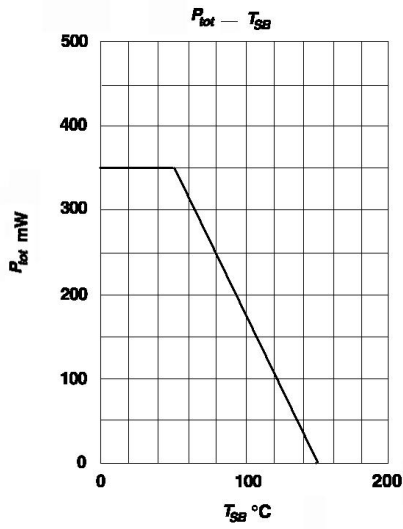
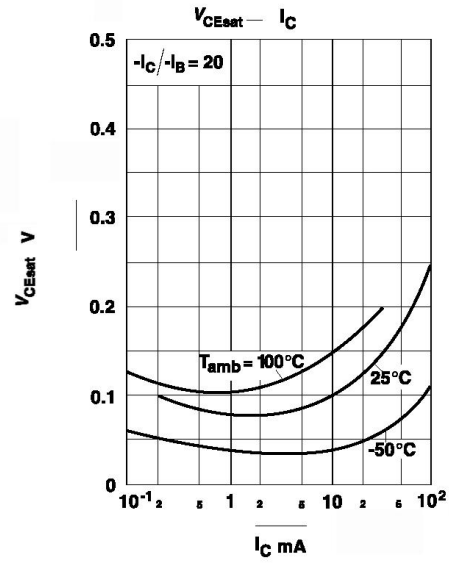
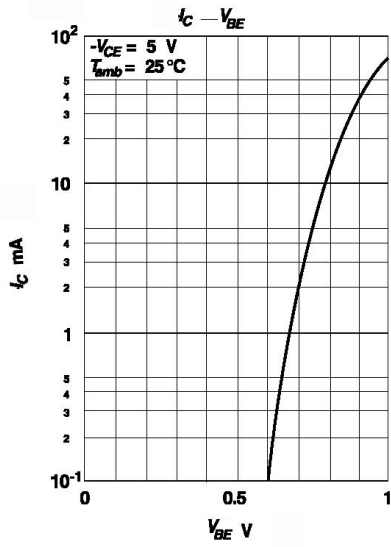
**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	$V_{CBO}$	-80	V
Collector to Emitter Voltage	$V_{CEO}$	-65	V
Emitter to Base Voltage	$V_{EBO}$	-5.0	V
Collector Current	$I_C$	-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	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE}=-5.0V$ $I_C=-2.0mA$	125		475	
Collector-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-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-Emitter 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	$f_T$	$V_{CE}=-5.0V$ $f=100MHz$ $I_E=10mA$		150		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=-10V$ $I_E=0$ $f=1MHz$		4.5		pF
Noise Figure	NF	$V_{CE}=-6.0V$ $I_C=-0.2mA$ $R_g=2K\Omega$ $f=1KHz$		2.0	10	dB

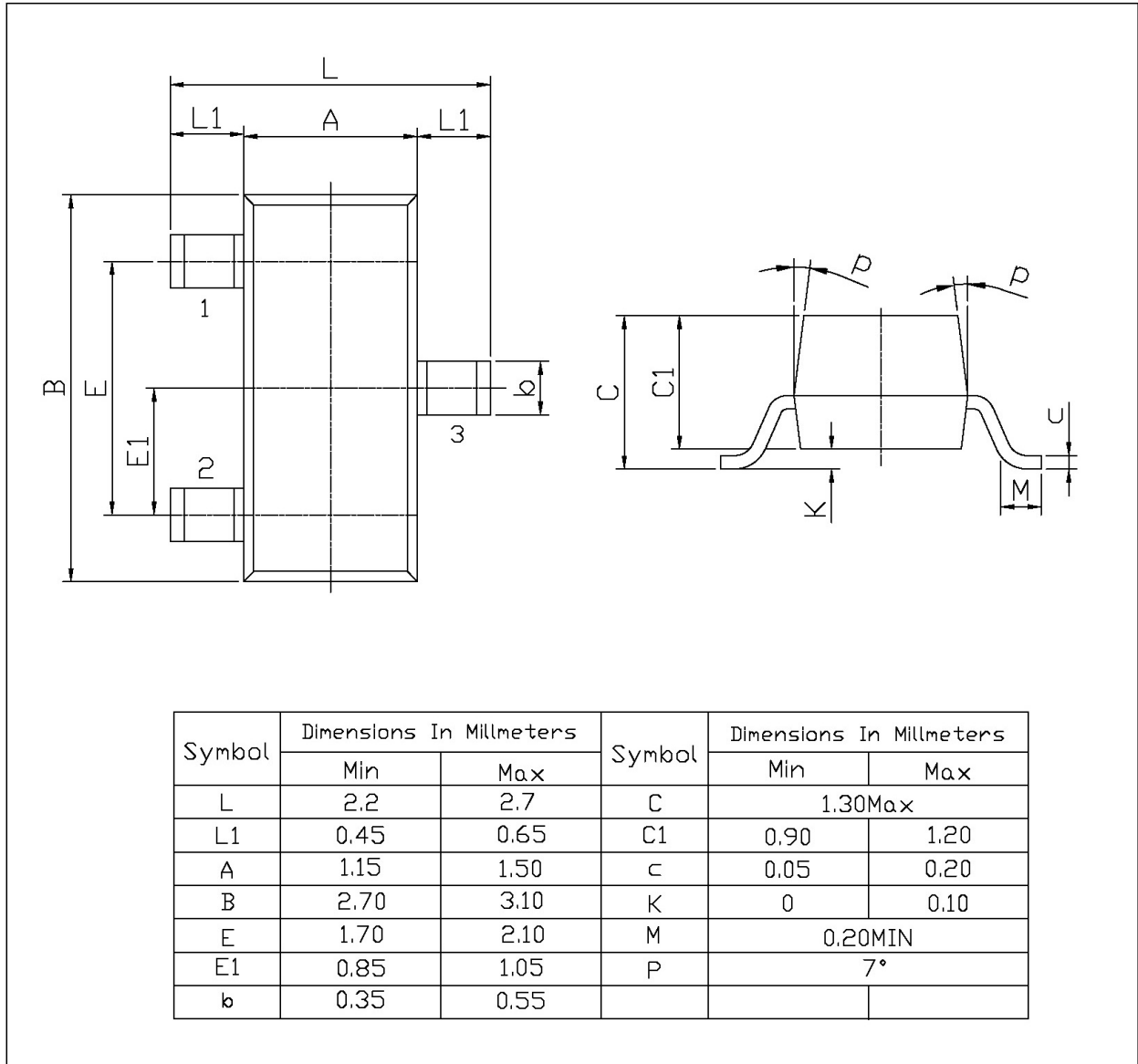
电参数曲线图 / Electrical Characteristic Curve



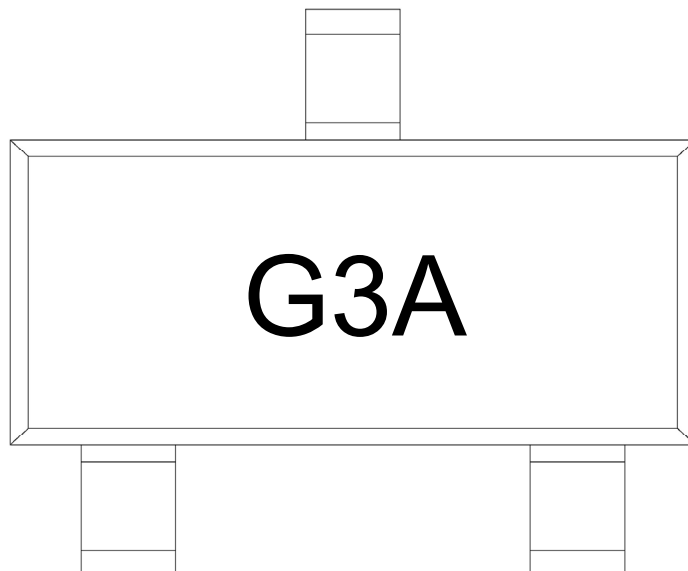
外形尺寸图 / Package Dimensions

SOT-23

单位: mm



**印章说明 / Marking Instructions**



说明：

G： 为无卤产品代码

3A： 为型号代码

Note:

G： Halogen Free Product Code

3A： 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 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 <sup>3</sup> )		
	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	8	180,000	7" x8	180×120×180	390×385×205

**使用说明 / Notices**