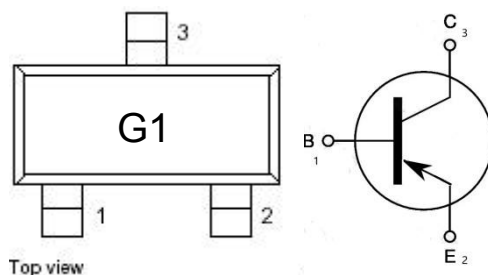


一、Features 产品特性



印字 marking: G1

MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$) 最大额定值

CHARACTERISTIC 特性参数	Symbol 符号	Rating 额定值	Unit 单位
Collector-Emitter Voltage 集电极-发射极电压	V_{CEO}	160	Vdc
Collector-Base Voltage 集电极-基极电压	V_{CBO}	180	Vdc
Emitter-Base Voltage 发射极-基极电压	V_{EBO}	6.0	Vdc
Collector Current 集电极电流	I_{C}	600	mAdc

THERMAL CHARACTERISTICS 热特性

CHARACTERISTIC 特性参数	Symbol 符号	Max 最大值	Unit 单位
Total power dissipation 总耗散功率 ($T_{\text{amb}}=25^{\circ}\text{C}$;note1)	P_{D}	225	mW
Junction and Storage Temperature 结温和储存温度	$T_{\text{j}}, T_{\text{stg}}$	150, -65~150	$^{\circ}\text{C}$
Operating ambient temperature 工作环境温度	T_{amb}	-65~150	$^{\circ}\text{C}$
Thermal resistance from junction to ambient 热阻(note1)	$R_{\text{th j-a}}$	556	K/W

1. Transistor mounted on an FR-5 printed-circuit board.

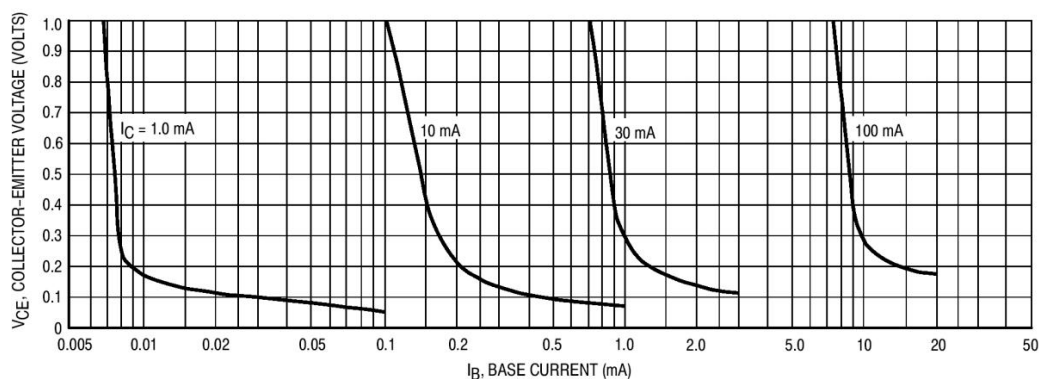
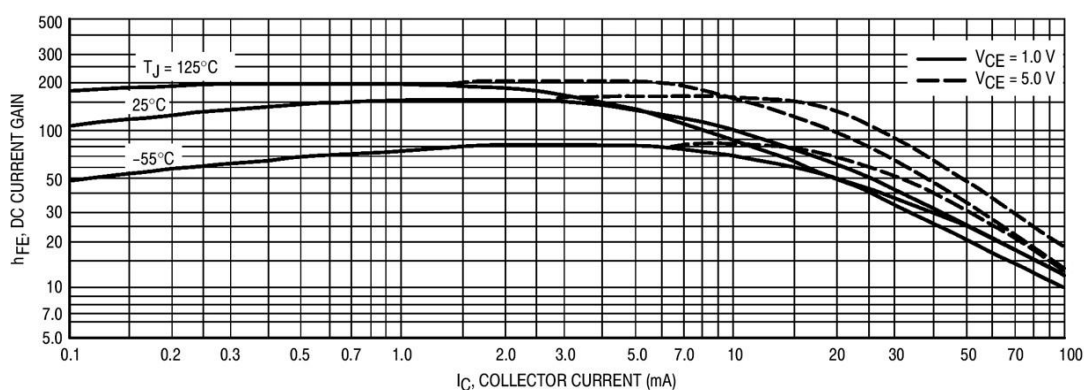
ELECTRICAL CHARACTERISTICS 电特性

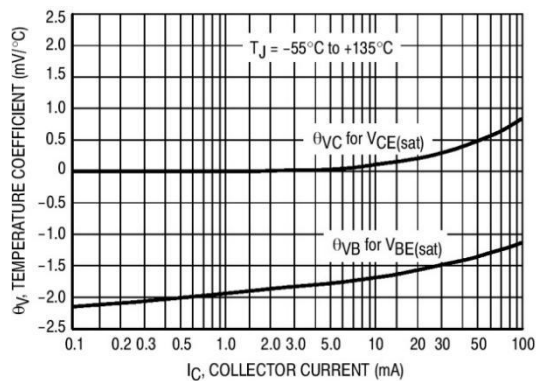
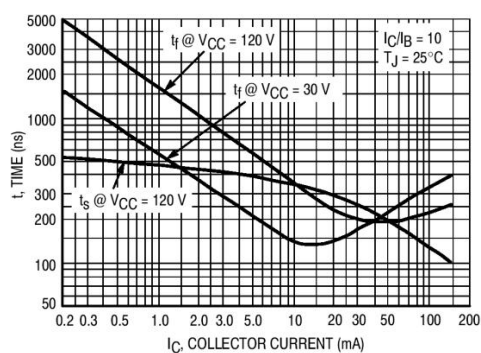
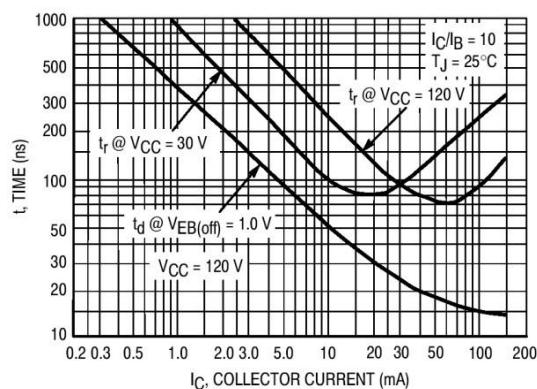
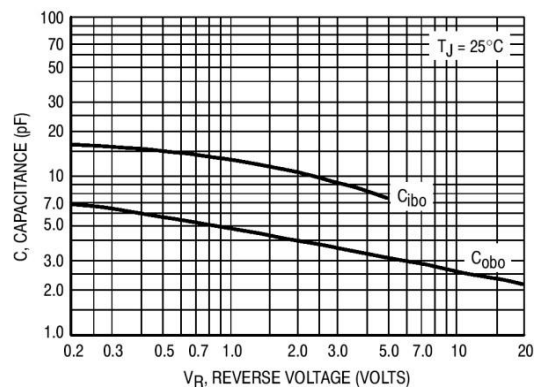
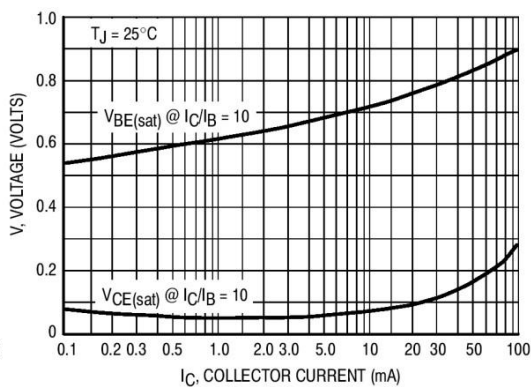
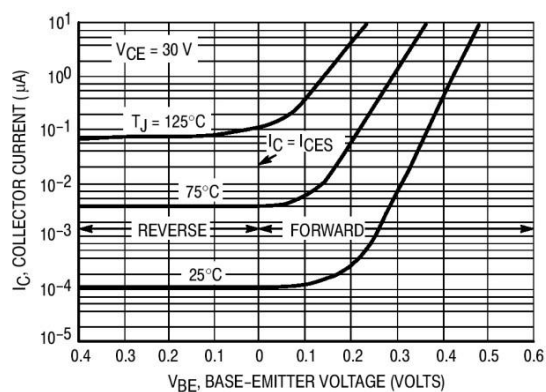
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	Test Condition 测试条件	Min 最小值	Max 最大值	Unit 单位
collector cut-off current 集电极截止电流	I_{CBO}	$V_{\text{CB}}=120\text{Vdc}, I_{\text{E}}=0$	—	50	nA
emitter cut-off current 发射极截止电流	I_{EBO}	$V_{\text{EB}}=4.0\text{Vdc}, I_{\text{C}}=0$	—	50	nA
Collector Emitter Breakdown Voltage 集电极-发射极击穿电压	$V_{(\text{BR})\text{CEO}}$	$I_{\text{C}}=1.0\text{ mAdc}, I_{\text{B}}=0$	160	—	Vdc
Collector Base Breakdown Voltage 集电极-基极击穿电压	$V_{(\text{BR})\text{CBO}}$	$I_{\text{C}}=100\mu\text{Adc}, I_{\text{E}}=0$	180	—	Vdc
Emitter Base Breakdown Voltage 发射极-基极击穿电压	$V_{(\text{BR})\text{EBO}}$	$I_{\text{E}}=10\mu\text{Adc}, I_{\text{C}}=0$	6.0	—	Vdc
DC current gain	h_{FE}	$I_{\text{C}}=1.0\text{ mAdc}, V_{\text{CE}}=5.0\text{Vdc}$	80	—	—

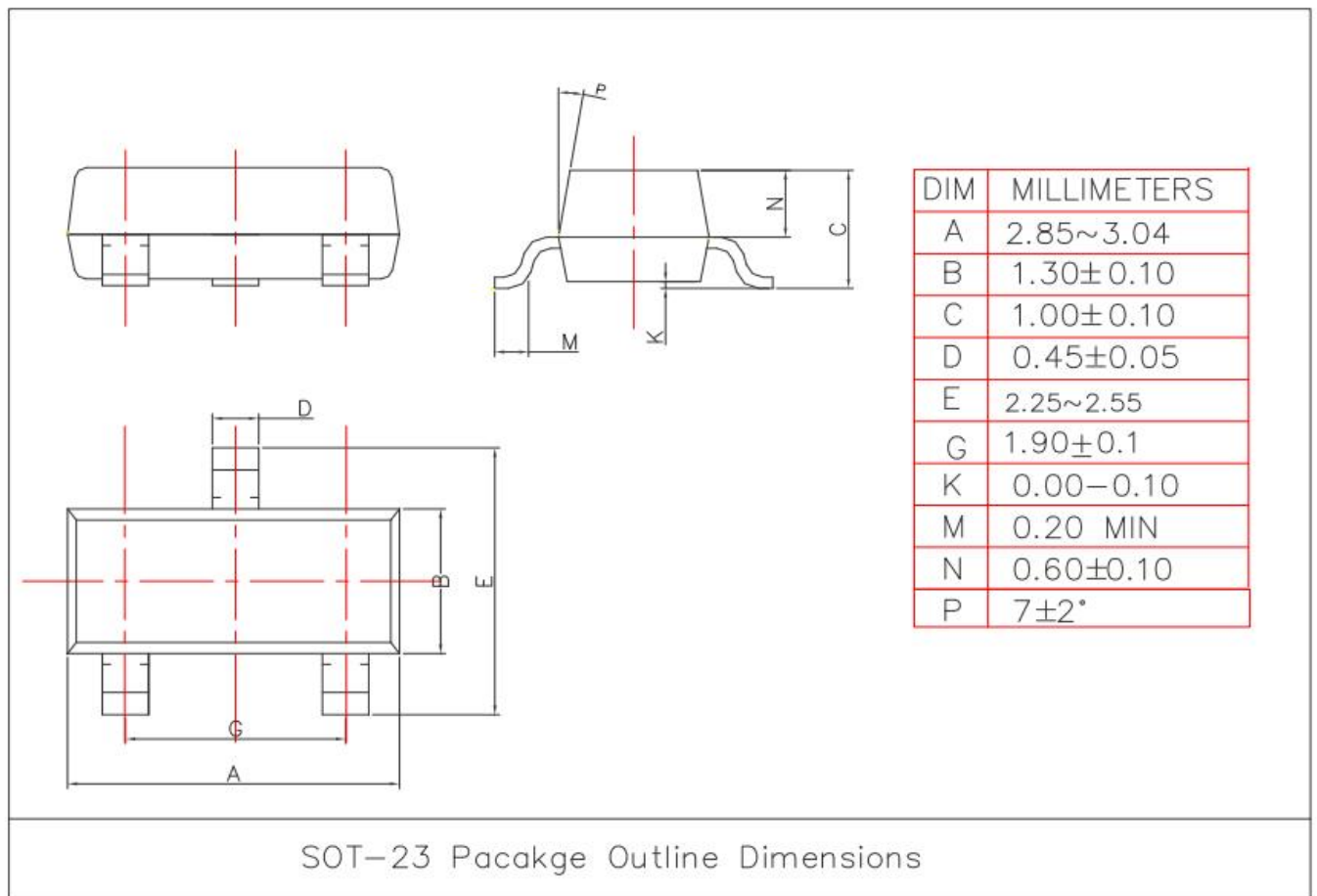
直流电流增益		$I_C=10\text{mA}, V_{CE}=5.0\text{Vdc}$	100	300	—
		$I_C=50\text{mA}, V_{CE}=5.0\text{Vdc}$	30	—	—
collector-emitter saturation voltage 集电极-发射极饱和压降	$V_{CE(sat)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$	—	0.15	Vdc
		$I_C=50\text{mA}, I_B=5.0\text{mA}$	—	0.2	Vdc
BaseEmitter Saturation Voltage 基极-发射极饱和压降	$V_{BE(sat)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$	—	1.0	Vdc
		$I_C=50\text{mA}, I_B=5.0\text{mA}$	—	1.0	Vdc
Transition Frequency 特征频率	f_T	$V_{CE}=10\text{V}, I_E=10\text{mA}, f=100\text{MHz}$	100	300	MHz
Collector Output Capacitance 输出电容	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$	—	6	pF
Input Capacitance 输出电阻	C_{ib}	$V_{BE}=0.5\text{Vdc}, I_C=0, f=1.0\text{MHz}$	—	20	pF
Small-Signal Current Gain 小信号电流增益	h_{fe}	$V_{CE}=10\text{Vdc}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	50	200	—
Noise Figure噪声系数	NF	$V_{CE}=5.0\text{Vdc}, I_C=250\mu\text{A}, R_g=1.0\text{k}\Omega, f=10\text{Hz}\sim 15.7\text{KHz}$	—	8	dB

Typical Performance Characteristics

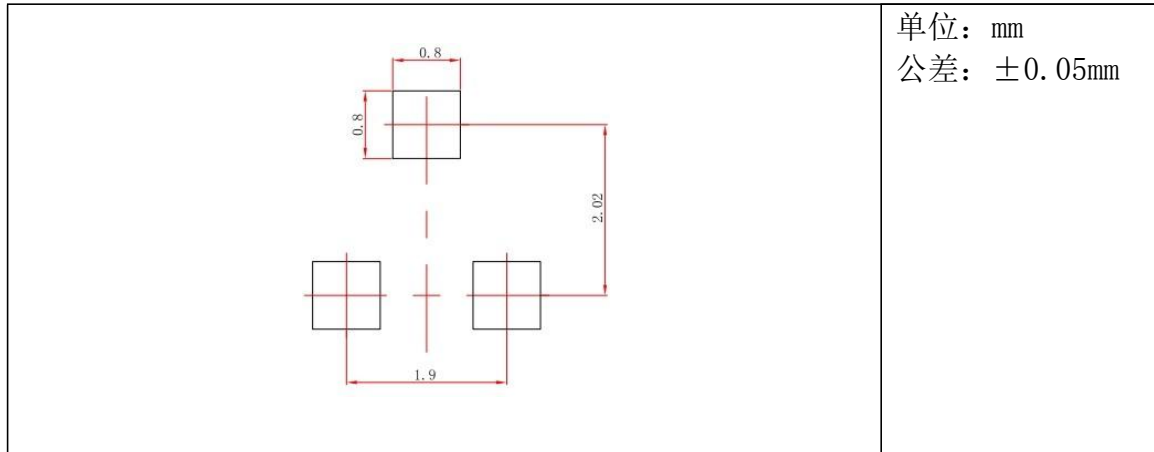




二、SOT-23 外形尺寸 (SOT-23 DIMENSION)

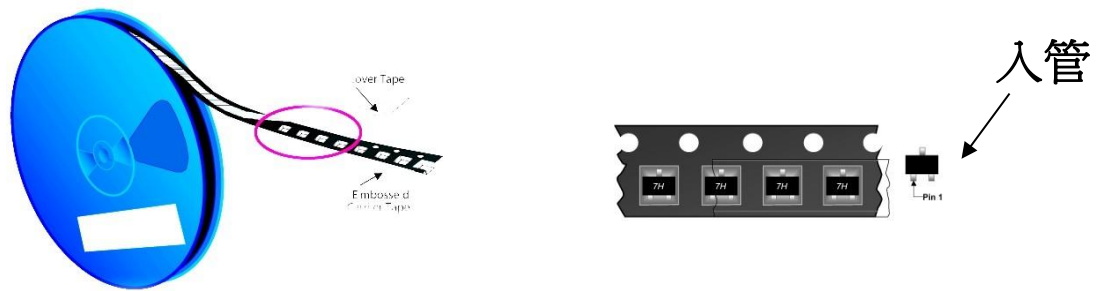


三、焊盘尺寸设计 SOT-23 Suggested Layout

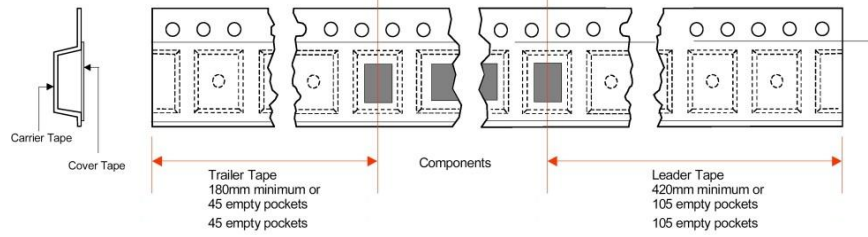


四、包装方式 Packings

封装形式	卷盘尺寸	只/卷	内盒尺寸	卷盘/内盒	只/内盒	外箱尺寸	内盒/外箱	只/外箱
SOT-23	7"	3000	190X190X135mm	10	30000	430 X 400 X 215 mm	6	180K
			203X203X195mm	15	45000	440 X 440 X 230 mm	4	180K



SOT-23 产品编带、包装图



SOT-23 带尾、带头空封数

