

SOT-23-3L Bipolar Transistor 双极型三极管

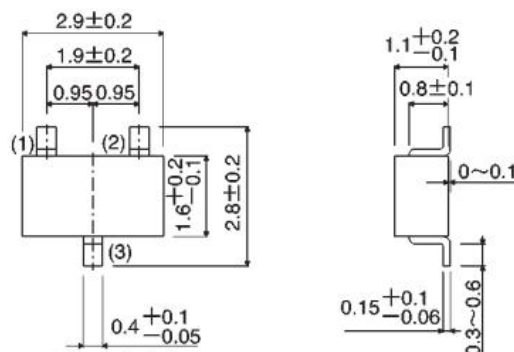
■ Features 特点

1、Emitter

2、Base

3、Collector

NPN High Voltage 高压



■ Absolute Maximum Ratings 最大额定值

Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Collector-Base Voltage 集电极基极电压	V_{CBO}	160	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	160	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	6	V
Collector Current 集电极电流	I_C	1000	mA
Power dissipation 耗散功率	$P_C(T_a=25^{\circ}C)$	250	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\theta JA}$	500	$^{\circ}C/W$
Junction and Storage Temperature 结温和储藏温度	T_J, T_{stg}	-55to+150 $^{\circ}C$	

■ Device Marking 产品打标

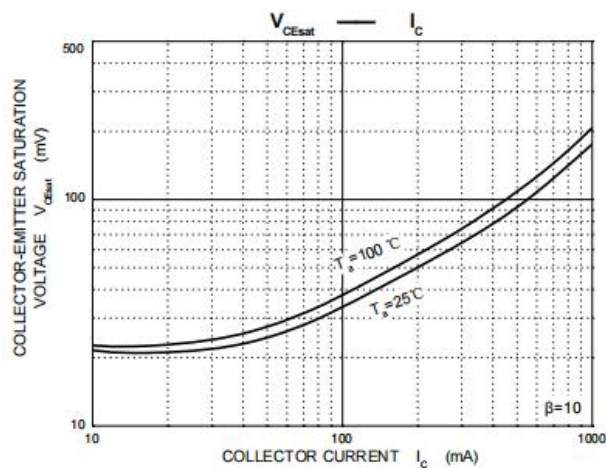
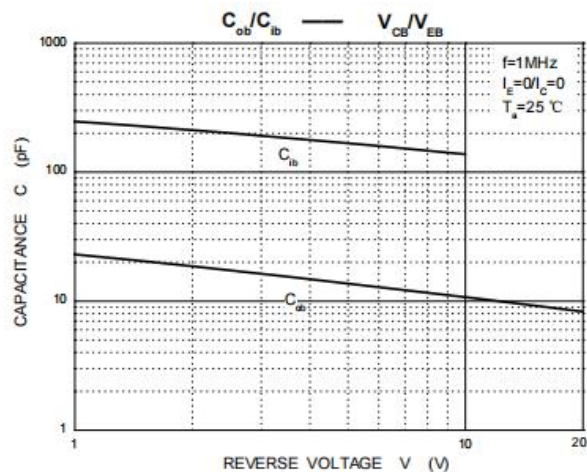
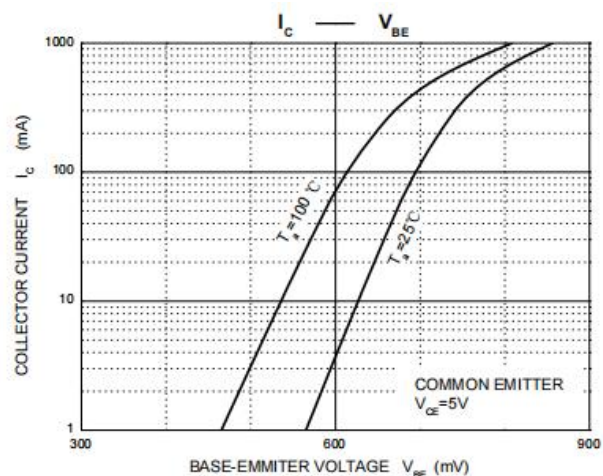
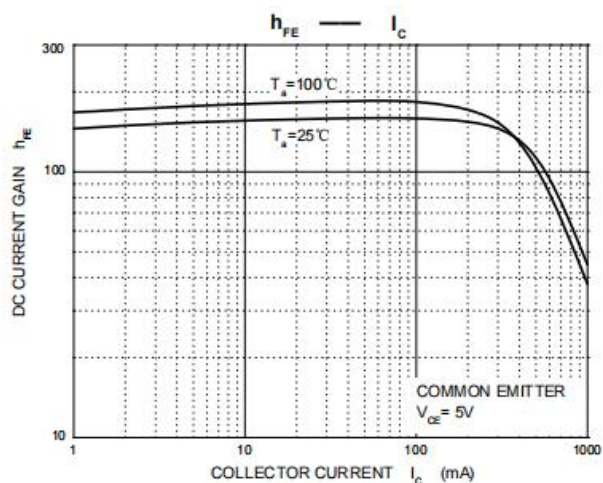
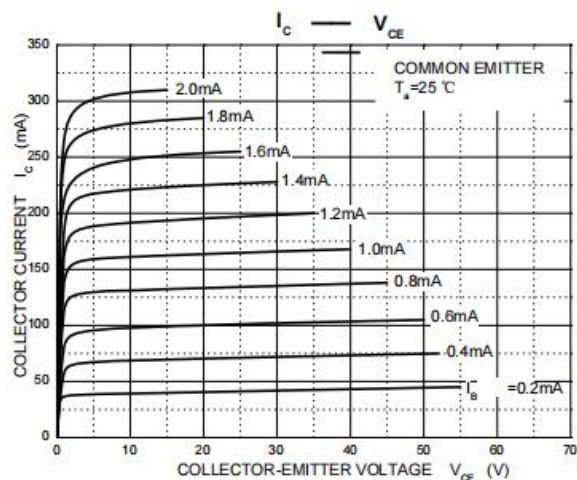
$H_{FE}(1)$	60-120(R)	100-200(O)	160-320(Y)
Mark	2383		

■Electrical Characteristics 电特性

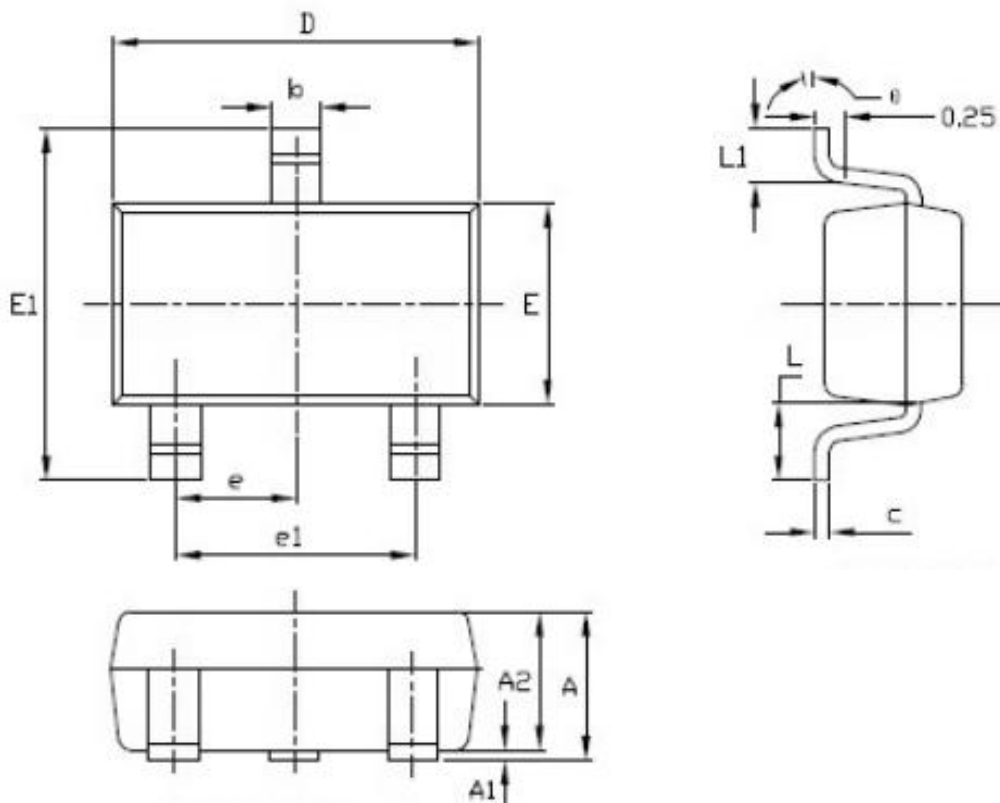
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector-Base Breakdown Voltage 集电极基极击穿电压($I_C=100\mu\text{A}$, $I_E=0$)	BV_{CBO}	160	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压($I_C=1\text{mA}$, $I_B=0$)	BV_{CEO}	160	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压($I_E=10\mu\text{A}$, $I_C=0$)	BV_{EBO}	6	—	—	V
Collector-Base Leakage Current 集电极基极漏电流($V_{CB}=150\text{V}$, $I_E=0$)	I_{CBO}	—	—	1	μA
Emitter-Base Leakage Current 发射极基极漏电流($V_{EB}=6\text{V}$, $I_C=0$)	I_{EBO}	—	—	1	μA
DC Current Gain 直流电流增益($V_{CE}=5\text{V}$, $I_C=200\text{mA}$)	$H_{FE}(1)$	60	—	320	
DC Current Gain 直流电流增益($V_{CE}=5\text{V}$, $I_C=10\text{mA}$)	$H_{FE}(2)$	40	—	—	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降($I_C=500\text{mA}$, $I_B=50\text{mA}$)	$V_{CE(sat)}$	—	—	0.75	V
Base-Emitter Saturation Voltage 基极发射极饱和压降($I_C=500\text{mA}$, $I_B=50\text{mA}$)	$V_{BE(sat)}$	—	—	1.5	V
Base-Emitter On Voltage 基极发射极导通电压($V_{CE}=5\text{V}$, $I_C=5\text{mA}$)	V_{BE}	—	—	0.75	V
Transition Frequency 特征频率($V_{CE}=5\text{V}$, $I_C=200\text{mA}$)	f_T	20	—	—	MHz
Output Capacitance 输出电容($V_{CB}=5\text{V}$, $I_E=0$, $f=1\text{MHz}$)	C_{ob}	—	12	—	pF

■ Typical Characteristic Curve 典型特性曲线



■Dimension 外形封装尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.600REF		0.024REF	
L1	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°