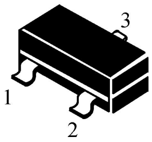
SOT-23 Bipolar Transistor 双极型三极管

SOT—23

1. BASE
2. EMITTER
3. COLLECTOR



■**Features 特点**

PNP General Purpose 通用

■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}	-55	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	-50	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	-5	V
Collector Current 集电极电流	I_C	-150	mA
Power dissipation 耗散功率	$P_C(T_a=25℃)$	200	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\Theta JA}$	625	℃/W
Junction and Storage Temperature 结温和储藏温度	T_J,T_{stg}	-55to+150℃	

■Device Marking 产品打标

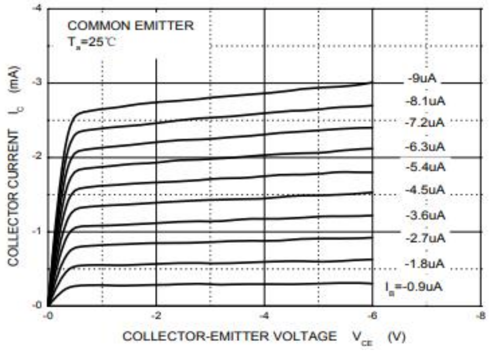
2SA1179=M

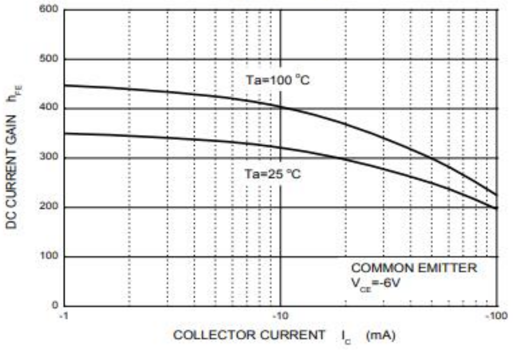
■Electrical Characteristics 电特性

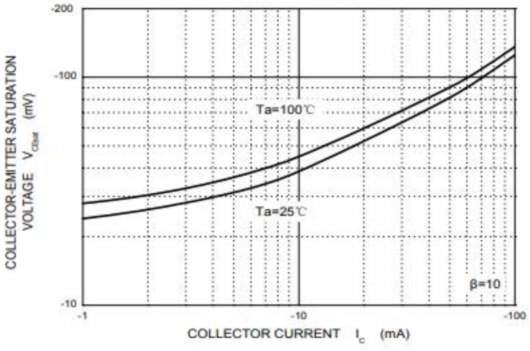
(T$_A$=25℃ unless otherwise noted 如无特殊说明，温度为 25℃)

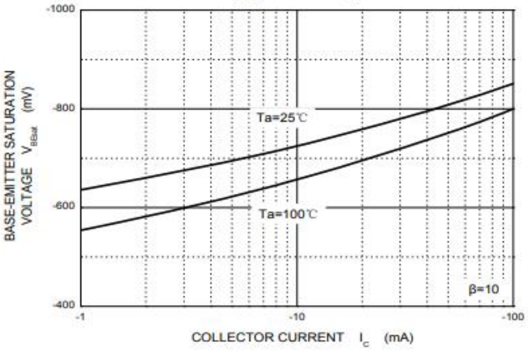
Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector-Base Breakdown Voltage 集电极基极击穿电压 (I$_C$= -100uA，I$_E$=0)	BV$_{CBO}$	-55	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压 (I$_C$= -1mA，I$_B$=0)	BV$_{CEO}$	-50	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压 (I$_E$= -100uA，I$_C$=0)	BV$_{EBO}$	-5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流 (V$_{CB}$= -50V，I$_E$=0)	I$_{CBO}$	—	—	-100	nA
Emitter-Base Leakage Current 发射极基极漏电流 (V$_{EB}$= -5V，I$_C$=0)	I$_{EBO}$	—	—	-100	nA
DC Current Gain 直流电流增益 (V$_{CE}$= -6V，I$_C$= -1mA)	H$_{FE}$	200	—	400	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降 (I$_C$= -50mA，I$_B$= -5mA)	V$_{CE(sat)}$	—	—	-0.5	V
Base-Emitter Saturation Voltage 基极发射极饱和压降 (I$_C$= -50mA，I$_B$= -5mA)	V$_{BE(sat)}$	—	—	-1	V
Transition Frequency 特征频率 (V$_{CE}$= -6V，I$_C$= -10mA)	f$_T$	—	180	—	MH$_Z$
Output Capacitance 输出电容 (V$_{CB}$= -6V，I$_E$=0, f=1MH$_Z$)	C$_{ob}$	—	4	—	pF

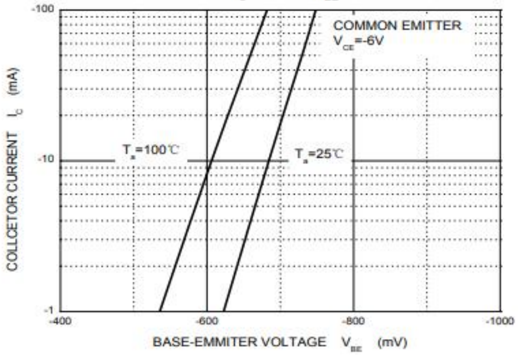
■Typical Characteristic Curve 典型特性曲线

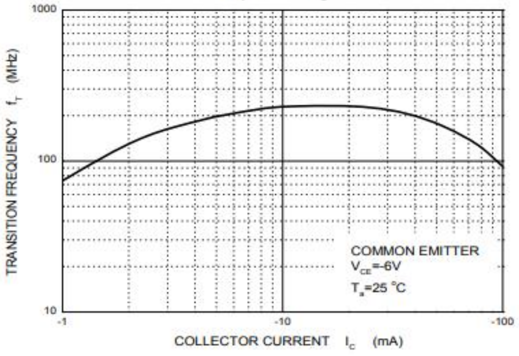

Static Characteristic

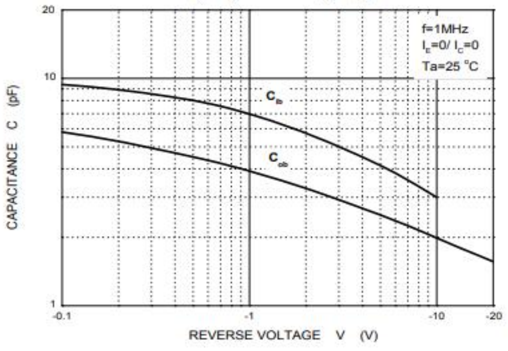

h_{FE} — I_C

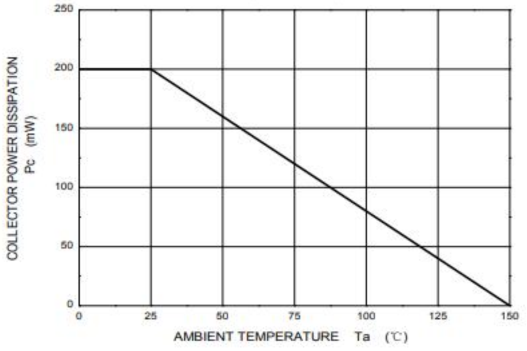

V_{CEsat} — I_C


V_{BEsat} — I_C

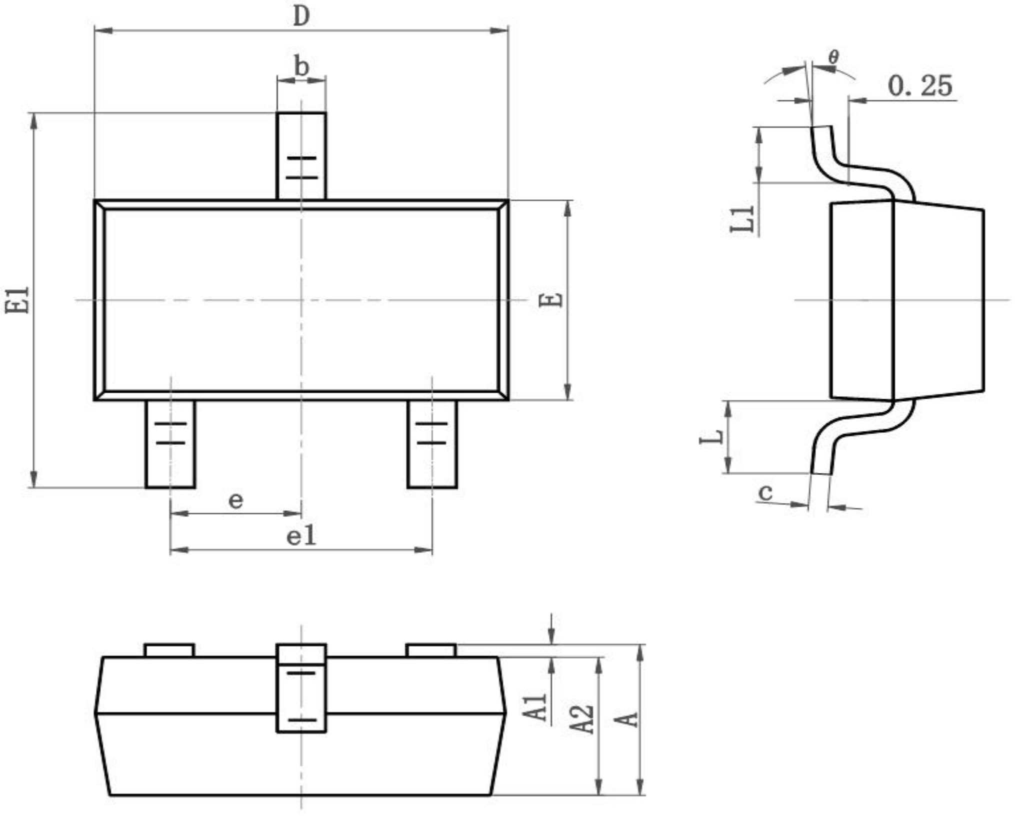

I_C — V_{BE}


f_T — I_C


C_{ob} / C_{ib} — V_{CB}/ V_{EB}


Pc — Ta

■Dimension 外形封装尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.050	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°