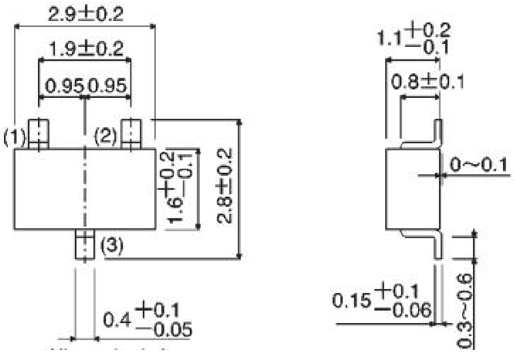
SOT-23-3L Bipolar Transistor 双极型三极管

■Features 特点

PNP General Purpose 通用

1、Emitter
2、Base
3、Collector



■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}	-80	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	-80	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	-5	V
Collector Current 集电极电流	I_C	-500	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

H_{FE}（1）	180-390（R）
Mark	AKR

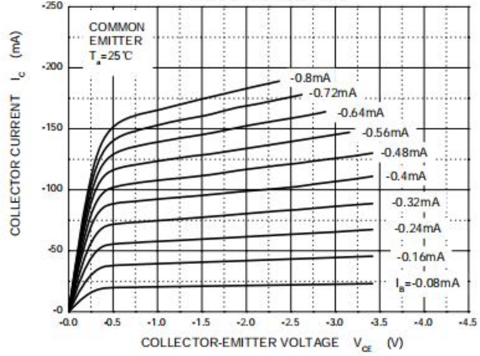
■Electrical Characteristics 电特性

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

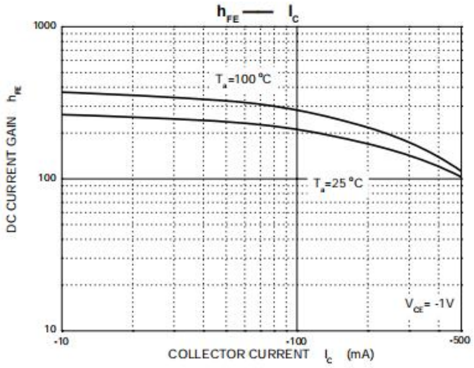
Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector-Base Breakdown Voltage 集电极基极击穿电压(I_C= -100μA，I_E=0)	BV_{CBO}	-80	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(I_C= -10mA，I_B=0)	BV_{CEO}	-80	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I_E= -100μA，I_C=0)	BV_{EBO}	-5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流(V_{CB}= -80V，I_E=0)	I_{CBO}	—	—	-0.1	μA
Emitter-Base Leakage Current 发射极基极漏电流(V_{EB}= -5V，I_C=0)	I_{EBO}	—	—	-0.1	μA
DC Current Gain 直流电流增益 (V_{CE}= -3V，I_C= -100mA)	H_{FE}（1）	180	—	390	
DC Current Gain 直流电流增益 (V_{CE}= -3V，I_C= -500mA)	H_{FE}（2）	45	—	—	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降 (I_C= -500mA，I_B= -50mA)	$V_{CE(sat)}$	—	—	-0.5	V
Base-Emitter On Voltage 基极发射极导通压降 (V_{CE}= -3V，I_C= -500mA)	V_{BE}	—	—	-1	V
Base-Emitter Saturation Voltage 基极发射极饱和压降 (I_C= -500mA，I_B= -50mA)	$V_{BE(sat)}$	—	—	-1	V
Transition Frequency 特征频率 (V_{CE}= -6V，I_C= -20mA)	f_T	—	120	—	MHz
Output Capacitance 输出电容 (V_{CB}= -6V，I_E=0, f=1MHz)	Cob	—	13	—	pF

■Typical Characteristic Curve 典型特性曲线

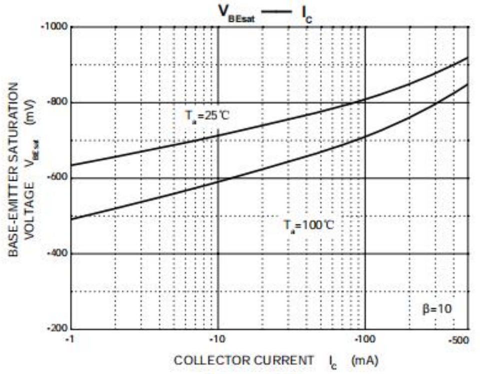
Static Characteristic



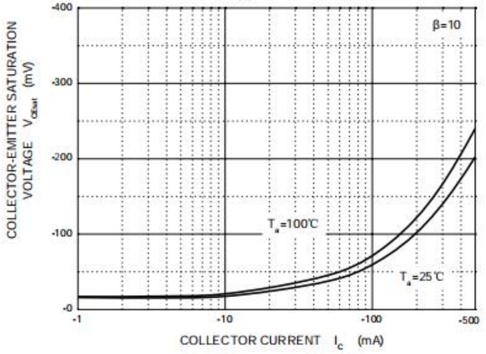
h_{FE} —— I_C



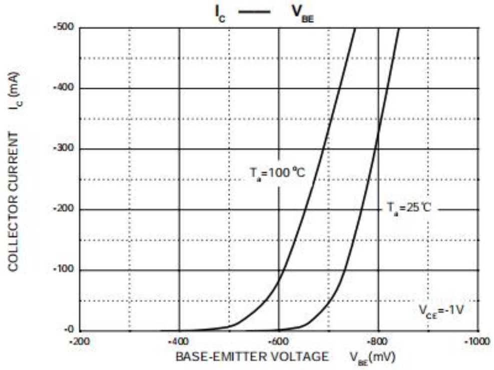
V_{BEsat} —— I_C



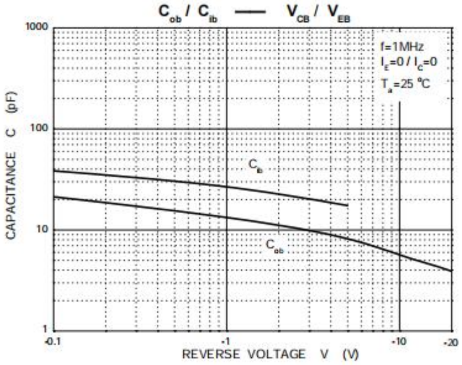
V_{CEsat} —— I_C



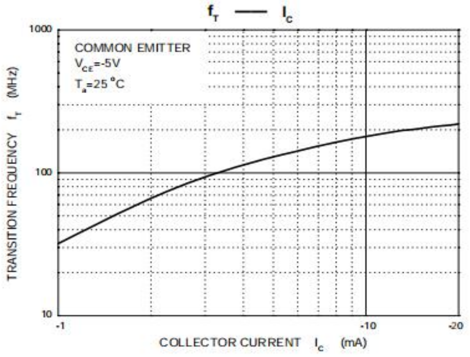
I_C —— V_{BE}



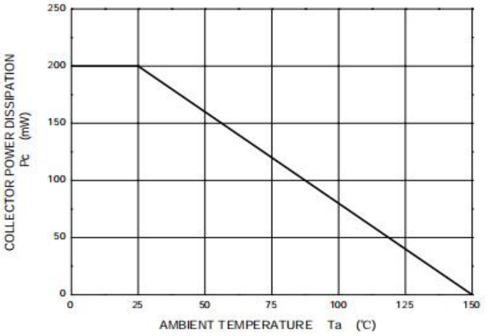
C_{ob} / C_{ib} —— V_{CB} / V_{EB}



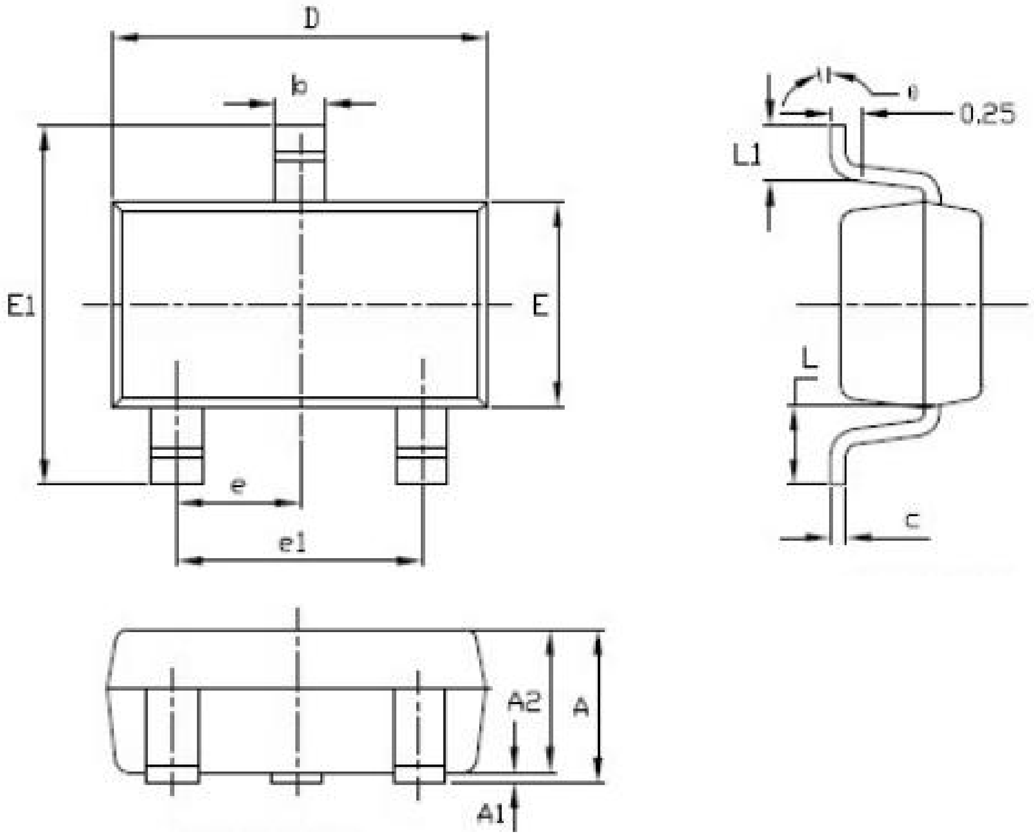
f_T —— I_C



Pc —— Ta



■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^{o}	8^{o}	0^{o}	8^{o}