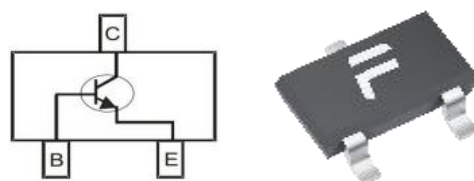


SOT-323 Bipolar Transistor 双极型三极管

■ Features 特点

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}	180	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	300	mA
Peak Collector Current 峰值集电极电流	I_{CM}	600	mA
Power dissipation 耗散功率	$P_C(T_a=25^{\circ}\text{C})$	200	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$
Junction and Storage Temperature 结温和储藏温度	T_J, T_{stg}	-55to+150 $^{\circ}\text{C}$	

■ Device Marking 产品打标

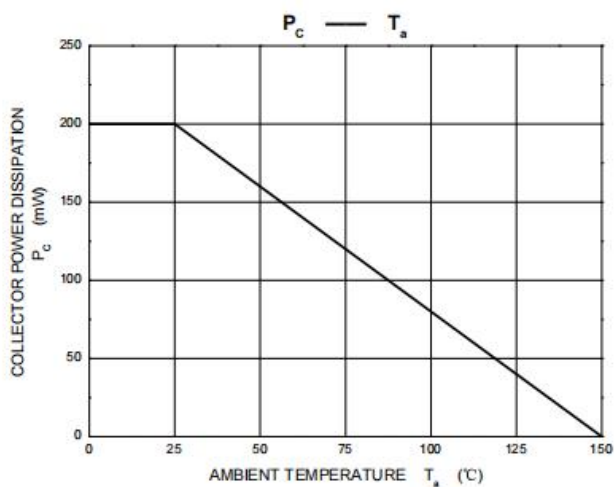
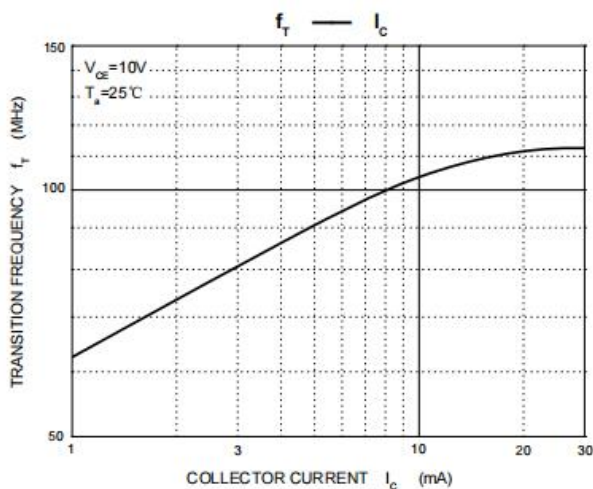
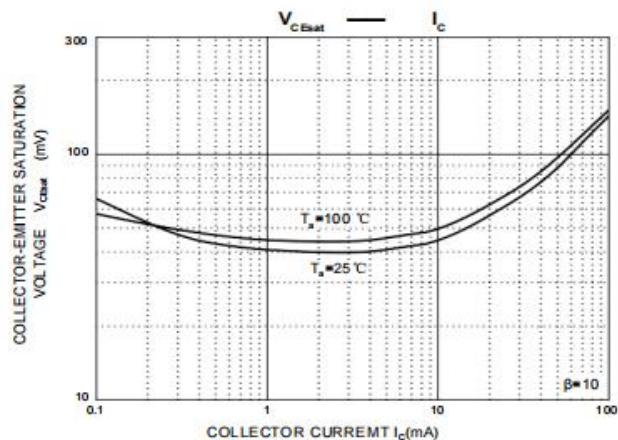
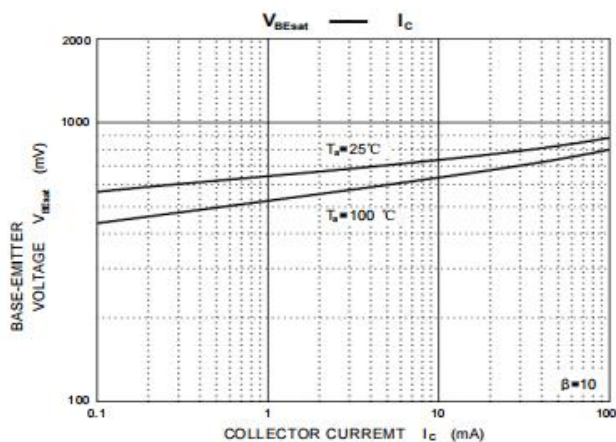
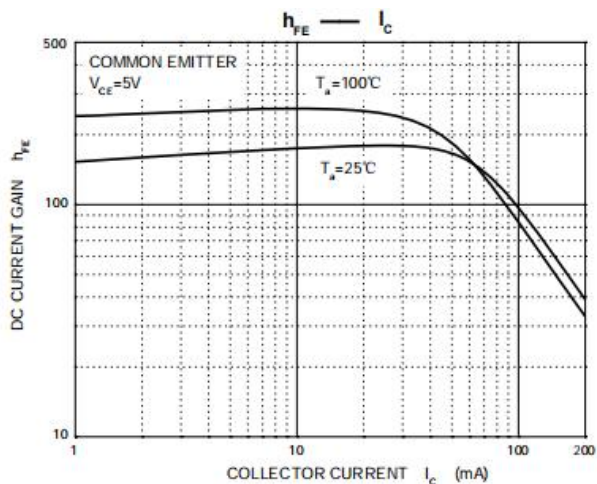
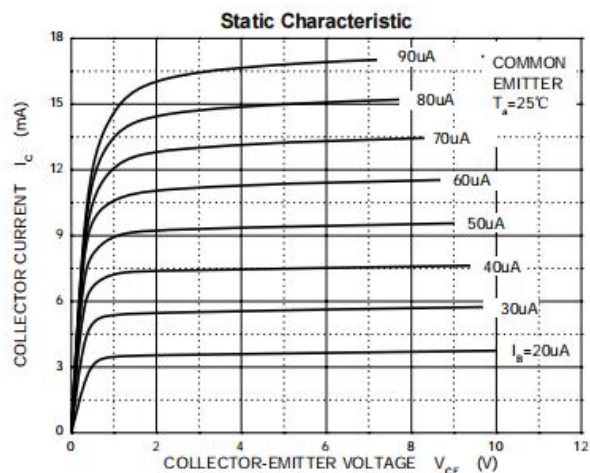
Marking	K4N
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■Electrical Characteristics 电特性

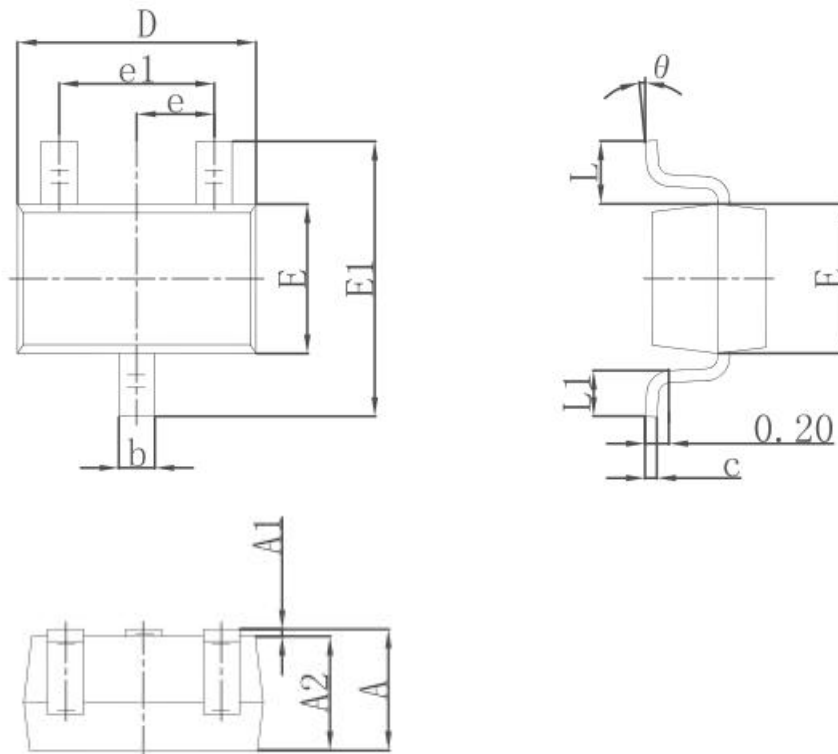
(TA=25℃ unless otherwise noted 如无特殊说明, 温度为 25℃)

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(IC=100uA, IE=0)	BV _{CBO}	180	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(IC=1mA, IB=0)	BV _{CEO}	160	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(IE=10uA, IC=0)	BV _{EBO}	6	—	—	V
Collector-Base Leakage Current 集电极基极漏电流(V _{CB} =180V, IE=0)	I _{CBO}	—	—	100	nA
Collector-Emitter Leakage Current 集电极发射极漏电流(V _{CE} =120V, IB=0)	I _{CEO}	—	—	100	nA
Emitter-Base Leakage Current 发射极基极漏电流(V _{EB} =6V, IC=0)	I _{EBO}	—	—	100	nA
DC Current Gain 直流电流增益(V _{CE} =5V, IC=1mA)	H _{FE} (1)	80	—	—	
DC Current Gain 直流电流增益(V _{CE} =5V, IC=10mA)	H _{FE} (2)	100	—	300	
DC Current Gain 直流电流增益(V _{CE} =5V, IC=100mA)	H _{FE} (3)	30	—	—	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降(IC=10mA, IB=1mA) (IC=50mA, IB=5mA)	V _{CE(sat)}	—	—	0.15 0.2	V
Base-Emitter Saturation Voltage 基极发射极饱和压降(IC=10mA, IB=1mA) (IC=50mA, IB=5mA)	V _{BE(sat)}	—	—	1 1	V
Transition Frequency 特征频率(V _{CE} =10V, IC=10mA)	f _T	100	—	300	MHz
Output Capacitance 输出电容(V _{CB} =10V, IE=0, f=1MHz)	C _{ob}	—	6	—	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	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°