



安徽富信半导体科技有限公司

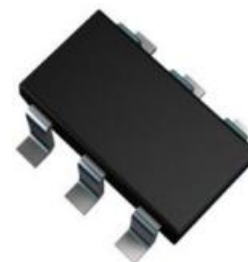
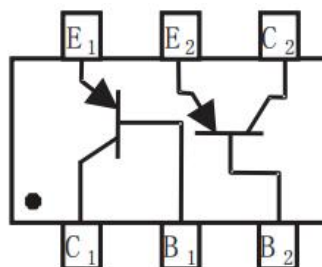
ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

MMDT5401D

SOT-23-6L Bipolar Transistor 双极型三极管

■ Features 特点

PNP+PNP 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}	-150	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	-5	V
Collector Current 集电极电流	I_C	-200	mA
Power dissipation 耗散功率	$P_C(T_a=25^\circ\text{C})$	300	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\theta JA}$	417	$^\circ\text{C}/\text{W}$
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	K4S
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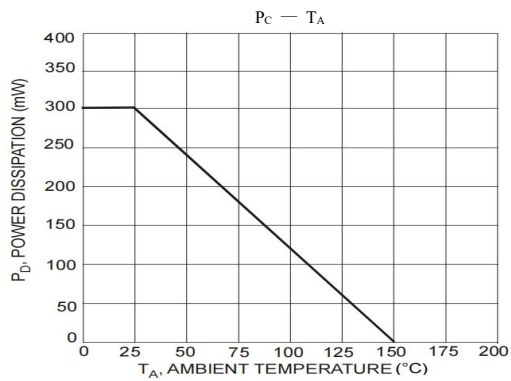
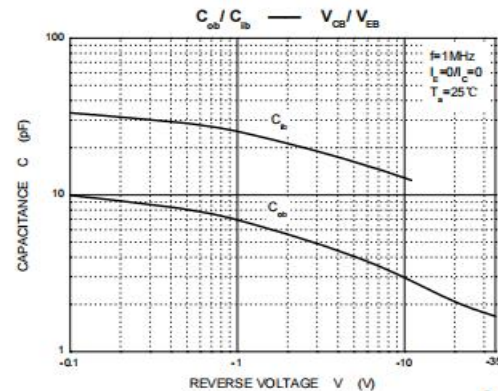
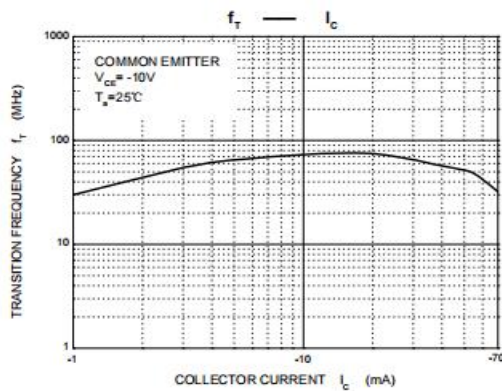
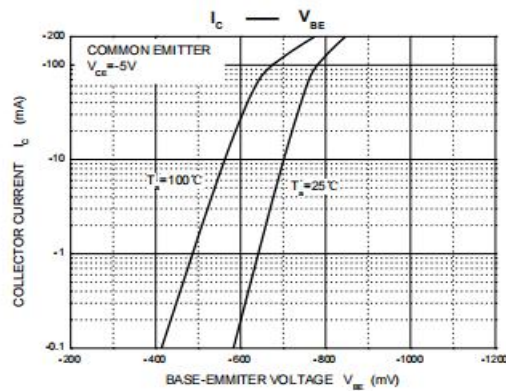
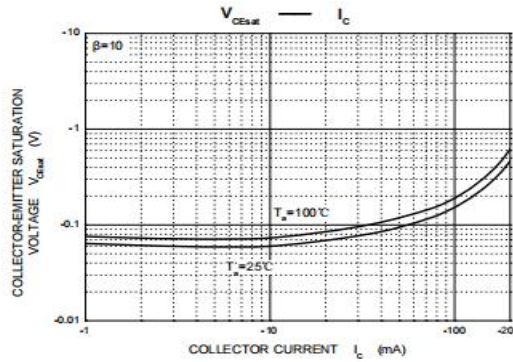
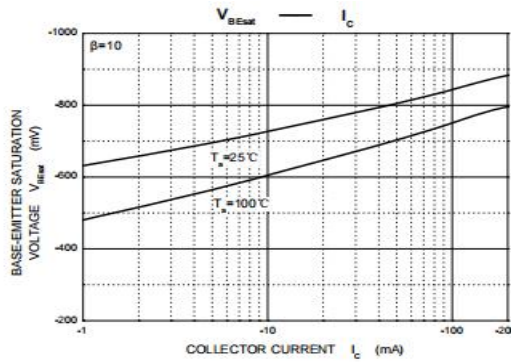
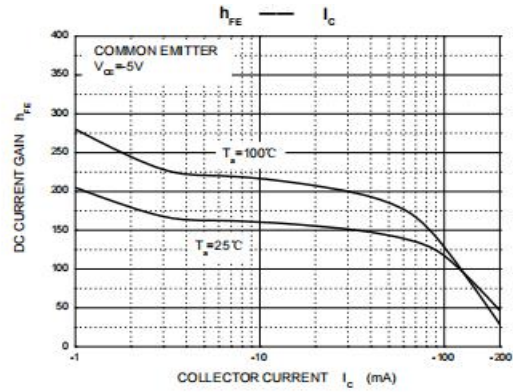
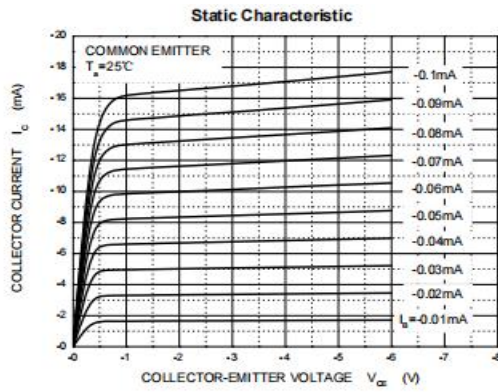


■Electrical Characteristics 电特性(PNP)

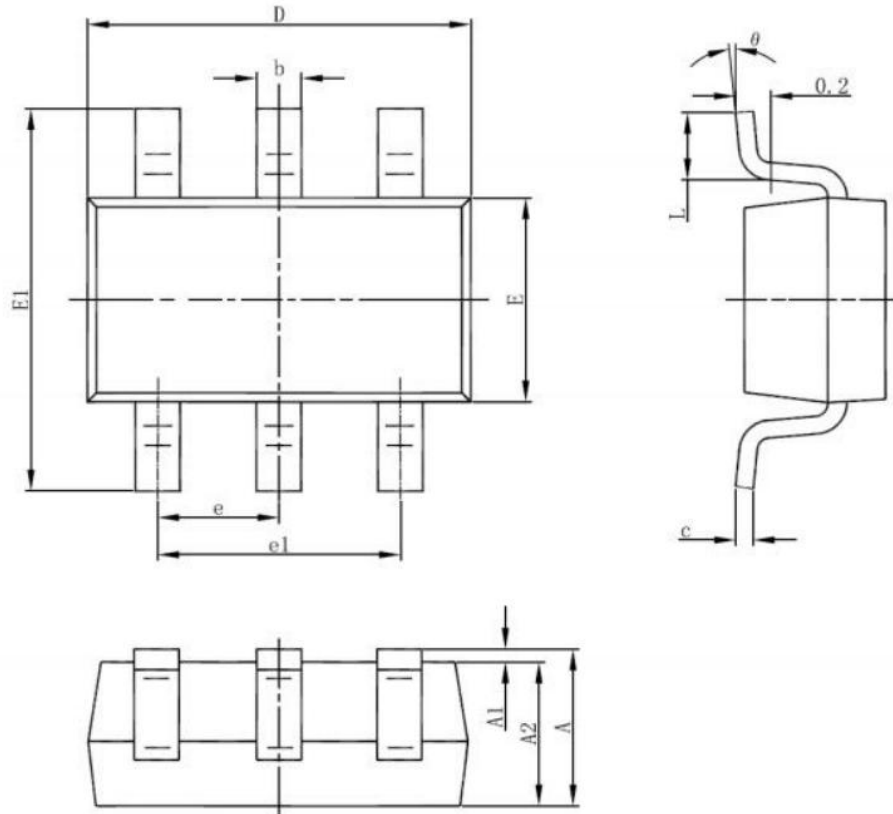
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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}	-150	—	—	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}	-5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流($V_{CB}=-120\text{V}$, $I_E=0$)	I_{CBO}	—	—	-50	nA
Emitter-Base Leakage Current 发射极基极漏电流($V_{EB}=-3\text{V}$, $I_C=0$)	I_{EBO}	—	—	-50	nA
DC Current Gain 直流电流增益($V_{CE}=-5\text{V}$, $I_C=-1\text{mA}$)	$H_{FE(1)}$	50	—	—	
DC Current Gain 直流电流增益($V_{CE}=-5\text{V}$, $I_C=-10\text{mA}$)	$H_{FE(2)}$	60	—	240	
DC Current Gain 直流电流增益($V_{CE}=-5\text{V}$, $I_C=-50\text{mA}$)	$H_{FE(3)}$	50	—	—	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降($I_C=-10\text{mA}$, $I_B=-1\text{mA}$) ($I_C=-50\text{mA}$, $I_B=-5\text{mA}$)	$V_{CE(sat)}$	—	—	-0.2 -0.5	V
Base-Emitter Saturation Voltage 基极发射极饱和压降($I_C=-10\text{mA}$, $I_B=-1\text{mA}$) ($I_C=-50\text{mA}$, $I_B=-5\text{mA}$)	$V_{BE(sat)}$	—	—	-1 -1	V
Transition Frequency 特征频率($V_{CE}=-10\text{V}$, $I_C=-10\text{mA}$)	f_T	100	—	300	MHz
Noise Figure 特征频率($V_{CE}=-5\text{V}$, $I_C=-200\mu\text{A}$, $f=1\text{KHz}$)	NF	—	—	8	db
Output Capacitance 输出电容($V_{CB}=-10\text{V}$, $I_E=0$, $f=1\text{MHz}$)	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	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	0.900	1.00	0.035	0.039
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.022	0.026
θ	0°	8°	0°	8°