



安徽富信半导体科技有限公司

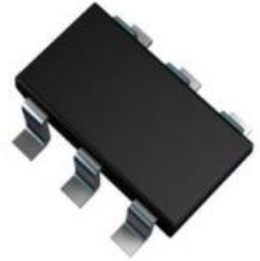
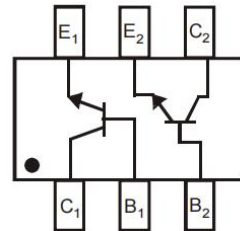
ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

MMDT5551D

SOT-23-6L Bipolar Transistor 双极型三极管

■ Features 特点

NPN+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	200	mA
Power dissipation 耗散功率	$P_C(T_a=25^{\circ}C)$	300	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\theta JA}$	417	$^{\circ}C/W$
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

Marking	K4R
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■Electrical Characteristics 电特性(NPN)

(TA=25°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(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} =120V, IE=0)	I _{CBO}	—	—	50	nA
Emitter-Base Leakage Current 发射极基极漏电流(V _{EB} =4V, IC=0)	I _{EBO}	—	—	50	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)	80	—	250	
DC Current Gain 直流电流增益(V _{CE} =5V, IC=50mA)	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=100MHz)	f _T	100	—	300	MHz
Noise Figure 特征频率(V _{CE} =5V, IC=200μA, f=1KHz)	NF	—	—	8	db
Output Capacitance 输出电容(V _{CB} =10V, IE=0, f=1MHz)	C _{ob}	—	6	—	pF

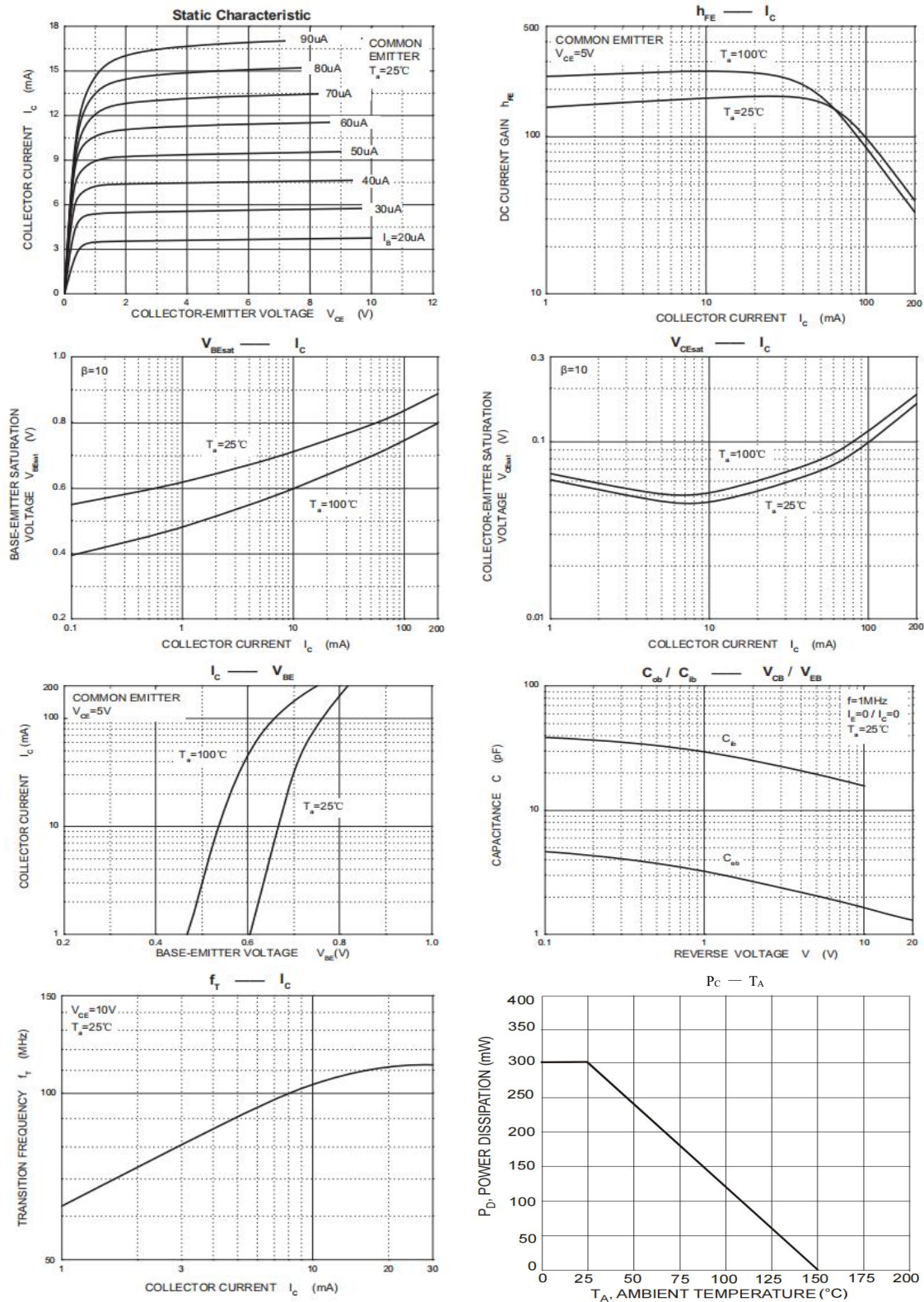


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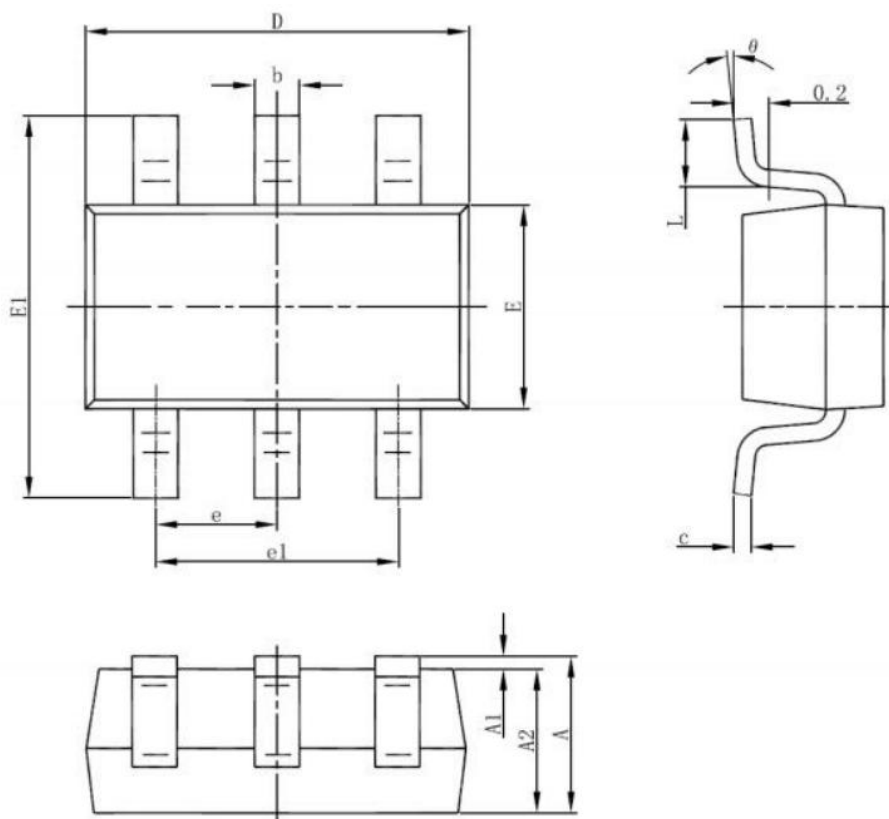
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Typical Characteristic Curve 典型特性曲线



■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°