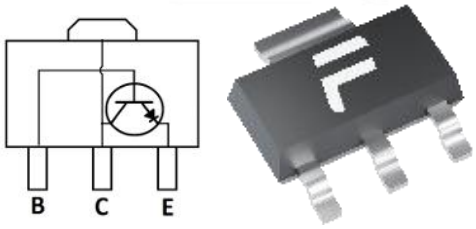
CZT5551-2AF

SOT-223 Bipolar Transistor 双极型三极管

HF RoHS Pb



■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	600	mA
Power dissipation 耗散功率	$P_C(T_a=25℃)$	2000	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\Theta JA}$	250	℃/W
Junction and Storage Temperature 结温和储藏温度	T_J,T_{stg}	-55to+150℃	

■Device Marking 产品打标

CZT5551-2AF=CZT5551

■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}	180	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(I_C=1mA，I_B=0)	BV_{CEO}	160	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I_E=100uA，I_C=0)	BV_{EBO}	6	—	—	V
Collector-Base Leakage Current 集电极基极漏电流(V_{CB}=120V，I_E=0)	I_{CBO}	—	—	50	nA
Emitter-Base Leakage Current 发射极基极漏电流(V_{EB}=4V，I_C=0)	I_{EBO}	—	—	50	nA
DC Current Gain 直流电流增益(V_{CE}=5V，I_C=1mA)	H_{FE}(1)	80	—	—	
DC Current Gain 直流电流增益(V_{CE}=5V，I_C=10mA)	H_{FE}(2)	80	—	400	
DC Current Gain 直流电流增益(V_{CE}=5V，I_C=100mA)	H_{FE}(3)	30	—	—	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降(I_C=10mA，I_B=1mA) (I_C=50mA，I_B=5mA)	$V_{CE(sat)}$	—	—	0.15 0.2	V
Base-Emitter Saturation Voltage 基极发射极饱和压降(I_C=10mA，I_B=1mA) (I_C=50mA，I_B=5mA)	$V_{BE(sat)}$	—	—	1 1	V
Transition Frequency 特征频率(V_{CE}=10V，I_C=10mA)	f_T	100	—	—	MHz
Output Capacitance 输出电容(V_{CB}=10V，I_E=0, f=1MHz)	C_{ob}	—	—	6	pF

■Typical Characteristic Curve 典型特性曲线

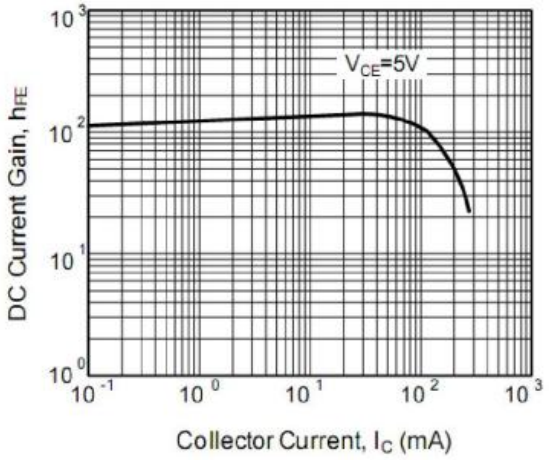


Figure 1. TDC Current Gain

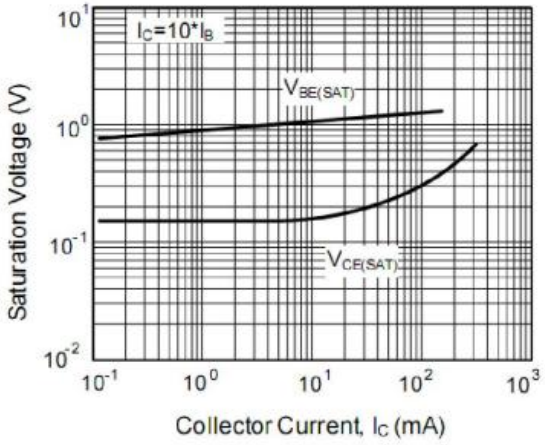


Figure 2. Saturation Voltage

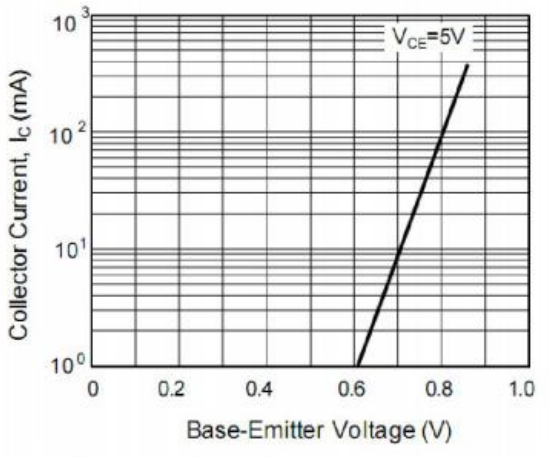


Figure 3. Base-Emitter on Voltage

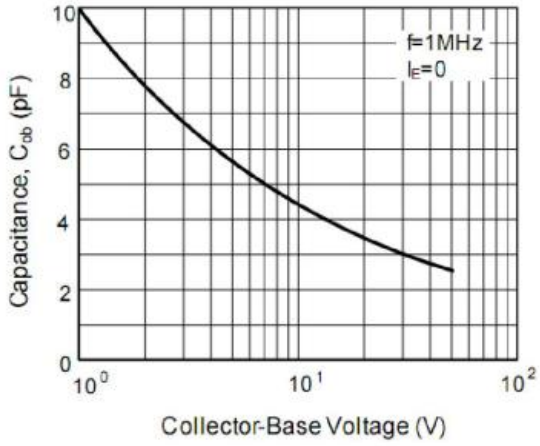


Figure 4. Collector Output Capacitance

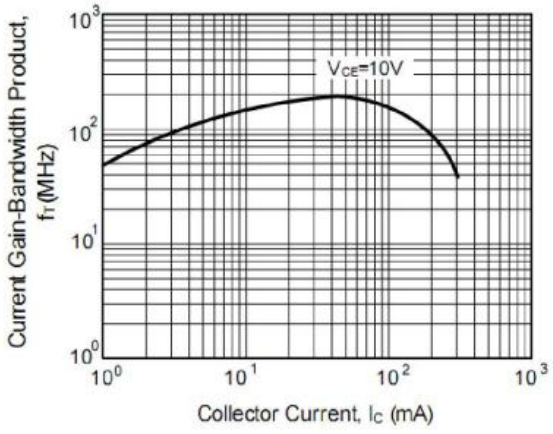
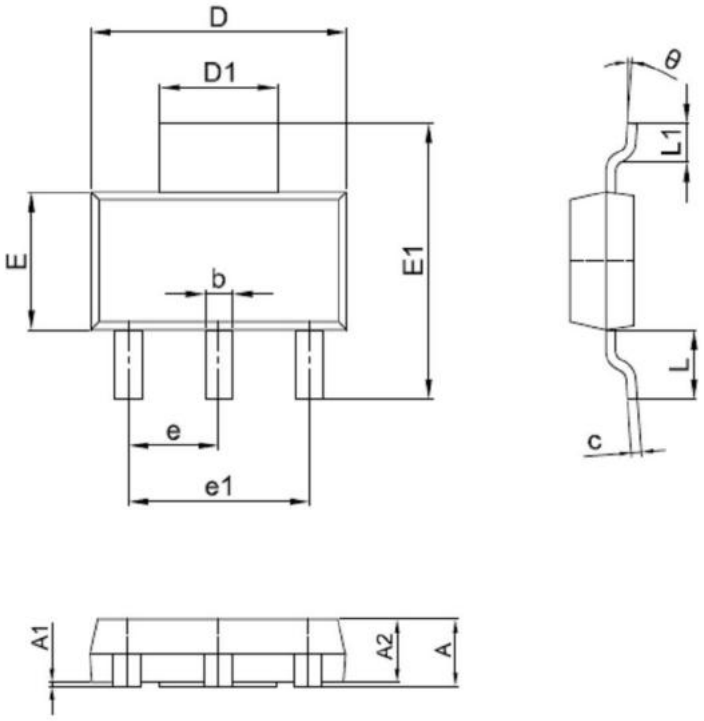


Figure 5. Current Gain-Bandwidth Product

■**Dimension 外形封装尺寸**



Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.50	1.80	0.059	0.071
A1	0.00	0.10	0.000	0.004
A2	1.50	1.70	0.059	0.067
b	0.65	0.75	0.026	0.030
c	0.20	0.30	0.008	0.012
D	6.40	6.60	0.252	0.260
D1	2.90	3.10	0.114	0.122
E	3.30	3.70	0.130	0.146
E1	6.85	7.15	0.270	0.281
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	1.65	1.85	0.065	0.073
L1	0.90	1.15	0.035	0.045