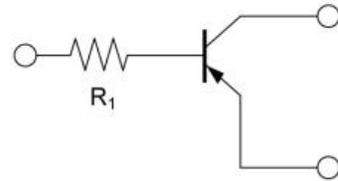


SOT-23 Digital Transistor 数字晶体管

■ Features 特点

1.Base 2.Emitter 3.Collector
PNP With Bias Resistor Network
带偏置电阻



■ 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}	-50	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	-50	V
Collector Current 集电极电流	I_C	-100	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

DTA114TCA=94

■ Electrical Characteristics 电特性

($T_A=25^{\circ}\text{C}$ 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 ($I_C = -10\mu\text{A}$, $I_E = 0$)	BV_{CBO}	-50	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压 ($I_C = -2\text{mA}$, $I_B = 0$)	BV_{CEO}	-50	—	—	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 ($V_{CB} = -50\text{V}$, $I_E = 0$)	I_{CBO}	—	—	-50	nA
Collector-Emitter Leakage Current 集电极发射极漏电流 ($V_{CE} = -50\text{V}$, $I_E = 0$)	I_{CEO}	—	—	-50	nA
Emitter-Base Leakage Current 发射极基极漏电流 ($V_{EB} = -5\text{V}$, $I_C = 0$)	I_{EBO}	—	—	-0.9	mA
DC Current Gain 直流电流增益 ($V_{CE} = -10\text{V}$, $I_C = -5\text{mA}$)	H_{FE}	100	250	—	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降 ($I_C = -10\text{mA}$, $I_B = -1\text{mA}$)	$V_{CE(sat)}$	—	—	-0.3	V
Input Resistor 输入电阻	R1	7	10	13	$\text{K}\Omega$
On Resistance 导通阻抗 ($f = 1\text{kHz}$, $I_B = -1\text{mA}$, $V_{IN} = -0.3\text{V}$)	R_{ON}	—	0.6	—	Ω
Transition frequency 特征频率 ($V_O = -10\text{V}$, $I_O = -5\text{mA}$)	f_t	—	250	—	MHz

■ Typical Characteristic Curve 典型特性曲线

Fig.1 Grounded emitter propagation characteristics

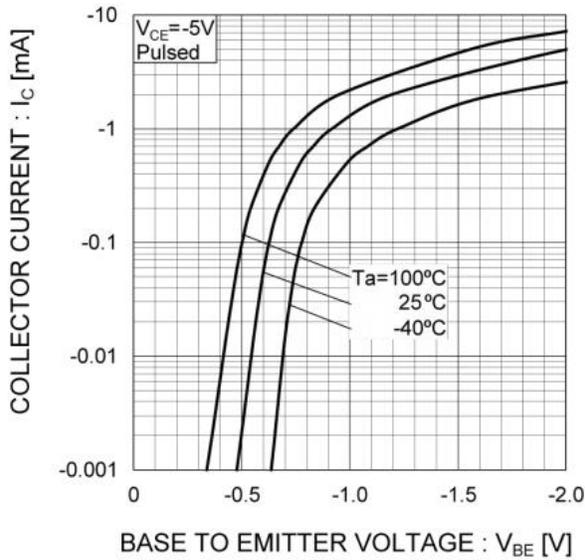


Fig.2 Typical Output Characteristics

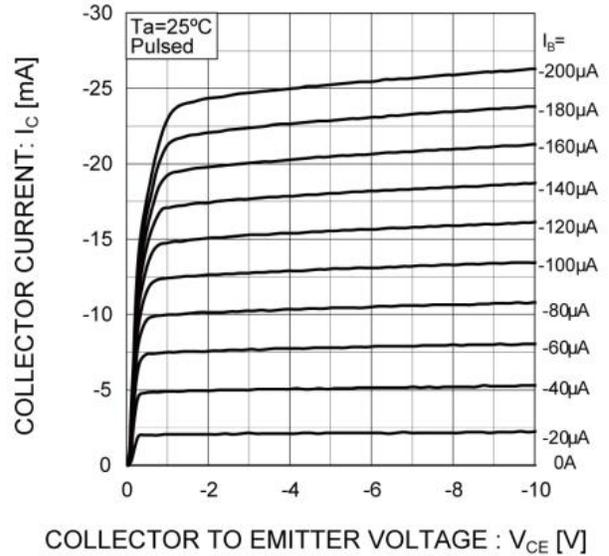


Fig.3 DC Current Gain vs. Collector Current

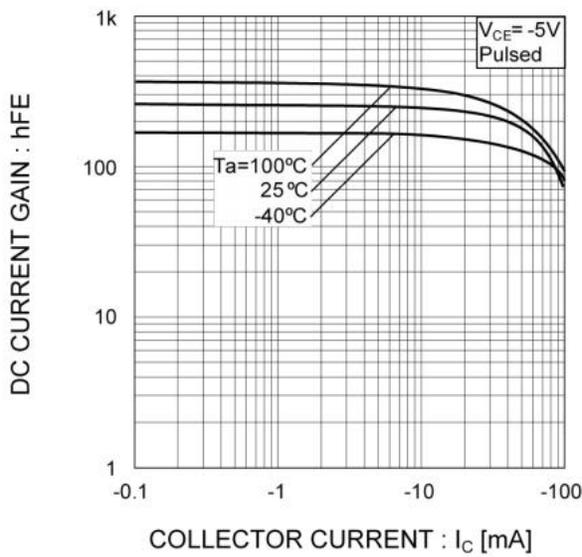
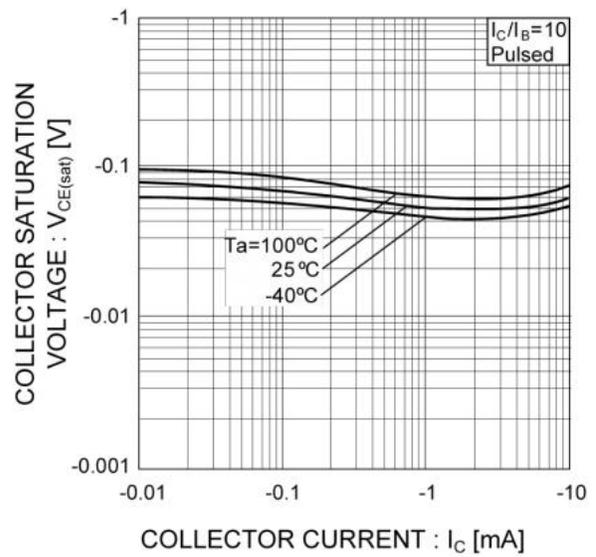
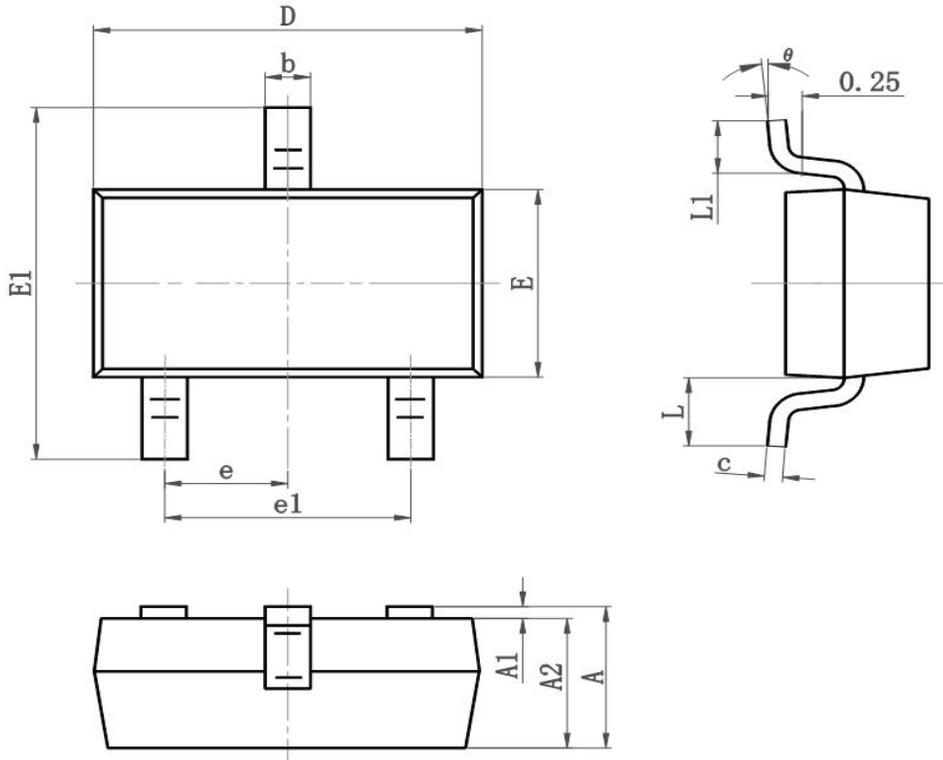


Fig.4 Collector-Emitter Saturation Voltage vs. Collector Current



■Dimension 外形封装尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.050	0.055
E1	2.250	2.550	0.089	0.100
e	0.900	1.00	0.035	0.039
e1	1.800	2.000	0.071	0.079
L	0.500	0.600	0.020	0.024
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°