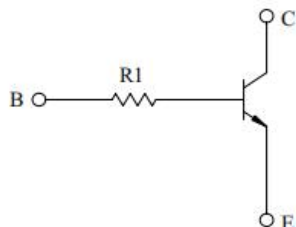
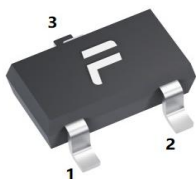


SOT-23 Digital Transistor 数字晶体管

■Features 特点

1.Base 2.Emitter 3.Collector
NPN 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	500	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

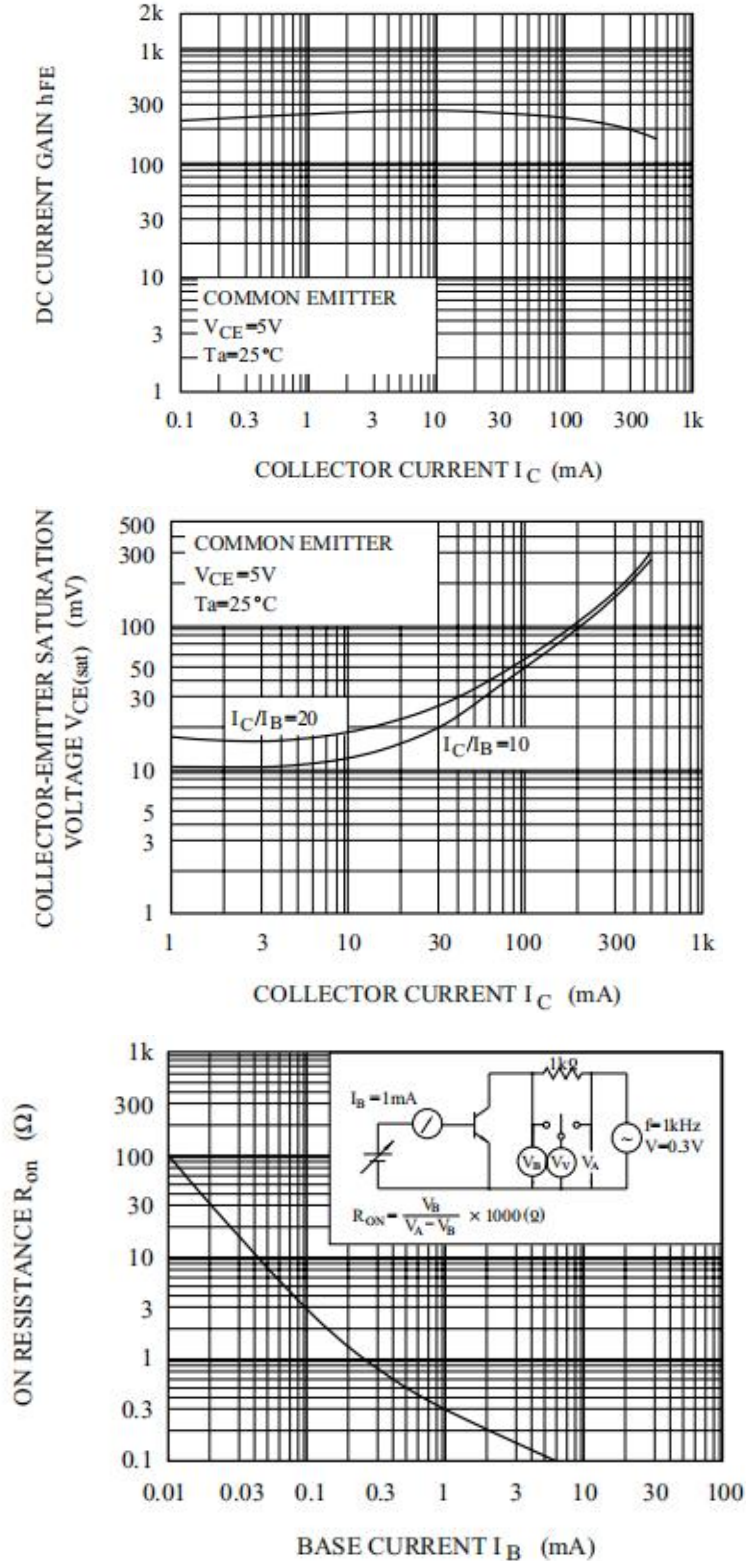
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■Electrical Characteristics 电特性

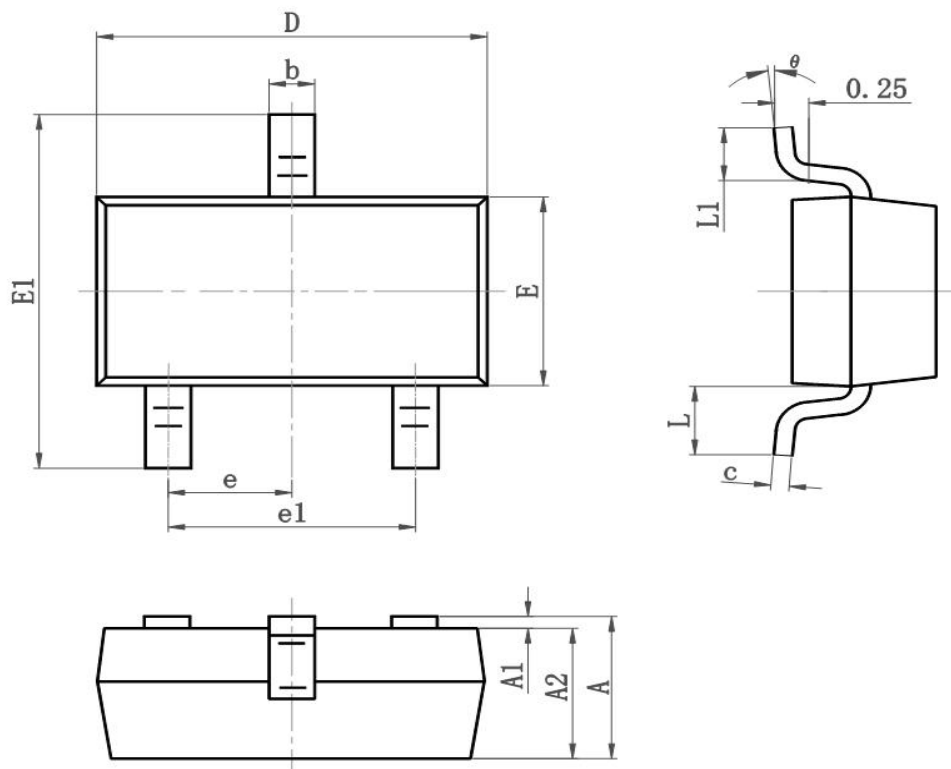
(TA=25℃ unless otherwise noted 如无特殊说明, 温度为 25℃)

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 ($I_C=10\mu A$, $I_E=0$)	BV_{CBO}	50	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压 ($I_C=2mA$, $I_B=0$)	BV_{CEO}	50	—	—	V
Collector-Base Leakage Current 集电极基极漏电流 ($V_{CB}=50V$, $I_E=0$)	I_{CBO}	—	—	50	nA
Collector-Emitter Leakage Current 集电极发射极漏电流 ($V_{CE}=50V$, $I_E=0$)	I_{CEO}	—	—	50	nA
Emitter-Base Leakage Current 发射极基极漏电流 ($V_{EB}=6V$, $I_C=0$)	I_{EBO}	—	—	0.9	mA
DC Current Gain 直流电流增益 ($V_{CE}=5V$, $I_C=50mA$)	H_{FE}	200	350	—	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降 ($I_C=50mA$, $I_B=2.5mA$)	$V_{CE(sat)}$	—	—	0.25	V
Output Voltage (on) 输出电压(导通) ($V_{CC}=5.0V$, $V_B=2.5V$, $R_L=1.0K\Omega$)	V_{OL}	—	—	0.2	V
Output Voltage (on) 输出电压(导通) ($V_{CC}=5.0V$, $V_B=0.25V$, $R_L=1.0K\Omega$)	V_{OH}	4.9	—	—	V
Input Resistor 输入电阻	R_I	3.3	4.7	6.1	$K\Omega$
On Resistance 导通阻抗 ($f=1kHz$, $I_B=1mA$, $V_{IN}=0.3V$)	R_{ON}	—	0.6	—	Ω
Transition frequency 特征频率 ($V_O=10V$, $I_O=5mA$)	f_T	—	200	—	MHz

■ 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	1.150	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°