

SOT-323 Digital Transistor 数字晶体管

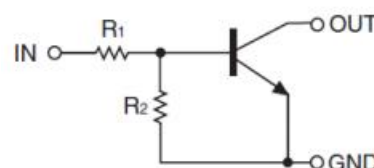
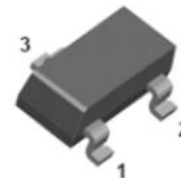
■ Features 特点

NPN With Bias Resistor Network
带偏置电阻

■ Absolute Maximum Ratings 最大额定值

SOT-323

1. IN
2. GND
3. OUT



Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Supply Voltage 电源电压	V_{CC}	60	V
Input Voltage 输入电压	V_{IN}	-7~+20	V
Output Current 输出电流	I_O	100	mA
Power dissipation 耗散功率	$P_C(T_a=25^{\circ}C)$	200	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\theta JA}$	625	$^{\circ}C/W$
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

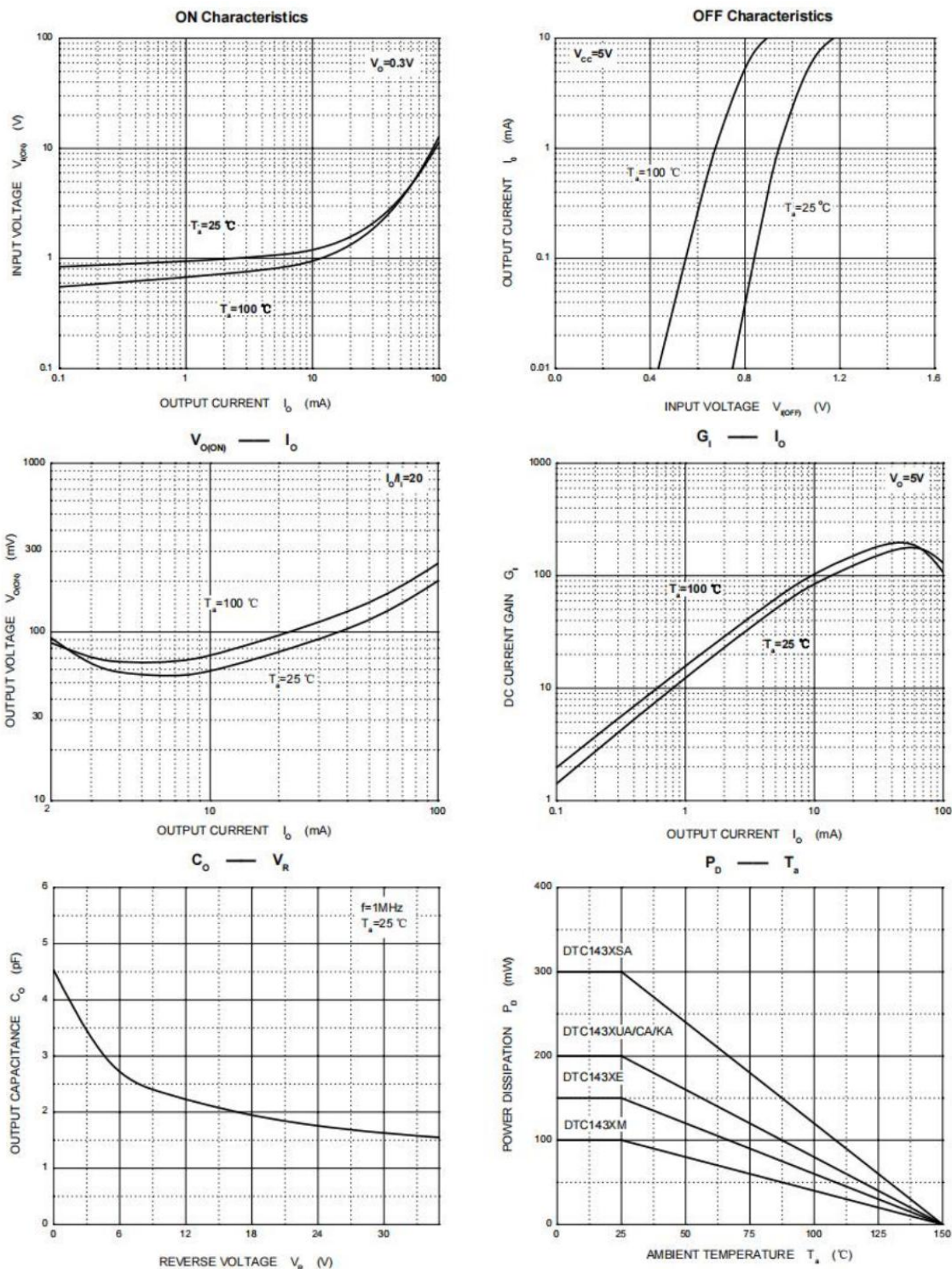
DTC143XUA=43

■Electrical Characteristics 电特性

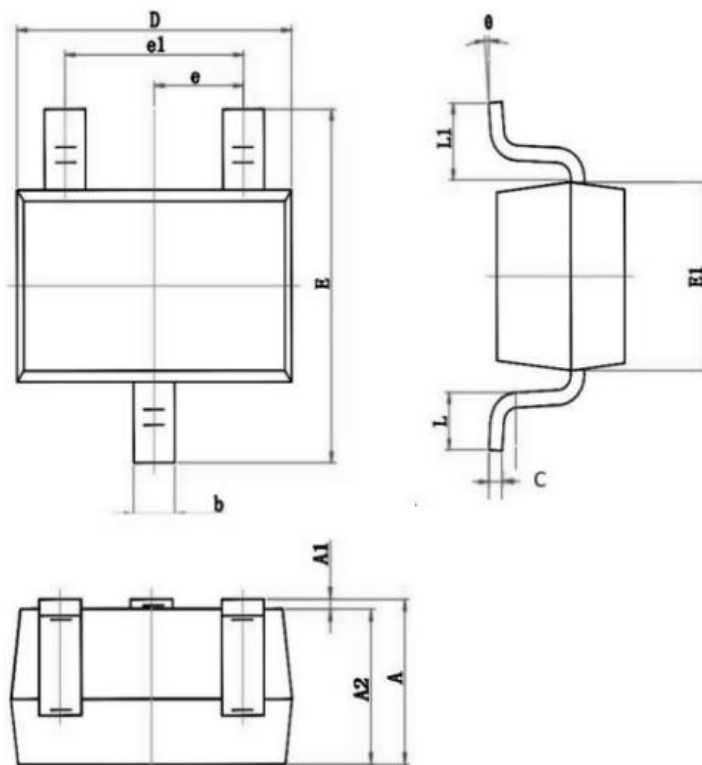
(TA=25℃ unless otherwise noted 如无特殊说明, 温度为 25℃)

Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Input Voltage 输入电压 (V _{CC} =5V, I _O =100μA)	V _{I(off)}	0.3	—	—	V
Input Voltage 输入电压 (V _O =0.3V, I _O =20mA)	V _{I(on)}	—	—	2.5	V
Output Voltage 输出电压 (I _O /I _I =10mA/0.5mA)	V _{O(on)}	—	0.1	0.3	V
Input Current 输入电流 (V _I =5V)	I _I	—	—	1.8	mA
Output Current 输出电流 (V _{CC} =50V, V _I =0)	I _{O(off)}	—	—	0.5	μA
DC Current Gain 直流电流增益 (V _O =5V, I _O =10mA)	G _I	30	—	—	
Input Resistor 输入电阻	R _I	3.29	4.7	6.11	KΩ
Resistor Ratio 电阻比率	R ₂ /R ₁	1.7	2.1	2.6	
Transition frequency 特征频率 (V _O =10V, I _O =5mA)	f _T	—	250	—	MHz

■ Typical Characteristic Curve 典型特性曲线



■Dimension 外形封装尺寸



Symbol	Dim in mm		
	最小值	中间值	最大值
A	0.90	1.00	1.10
A1	0.00	0.05	0.10
A2	0.90	0.95	1.00
b	0.15	0.25	0.35
c	0.10	0.12	0.15
D	1.80	2.00	2.20
E	2.15	2.25	2.35
E1	1.15	1.25	1.35
e	0.650TYP.		
e1	1.2	1.3	1.4
L	0.25	0.3	0.4
L1	0.525REF.		
θ	0°	4°	8°