

TO-220-3L Bipolar Transistor 双极型三极管

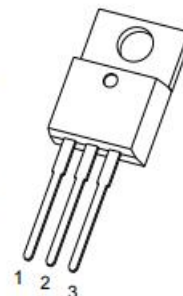
■ **Features 特点**

NPN Low Saturation Voltage 低饱和压降

■ **Absolute Maximum Ratings 最大额定值**

TO-220-3L

- 1. BASE
- 2. COLLECTOR
- 3. EMITTER



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}	80	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	60	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	5	V
Collector Current 集电极电流	I_C	3	A
Power dissipation 耗散功率	$P_C(T_a=25^\circ\text{C})$	2	W
Thermal Resistance Junction-Ambient 热阻	$R_{\theta JA}$	63	$^\circ\text{C}/\text{W}$
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**

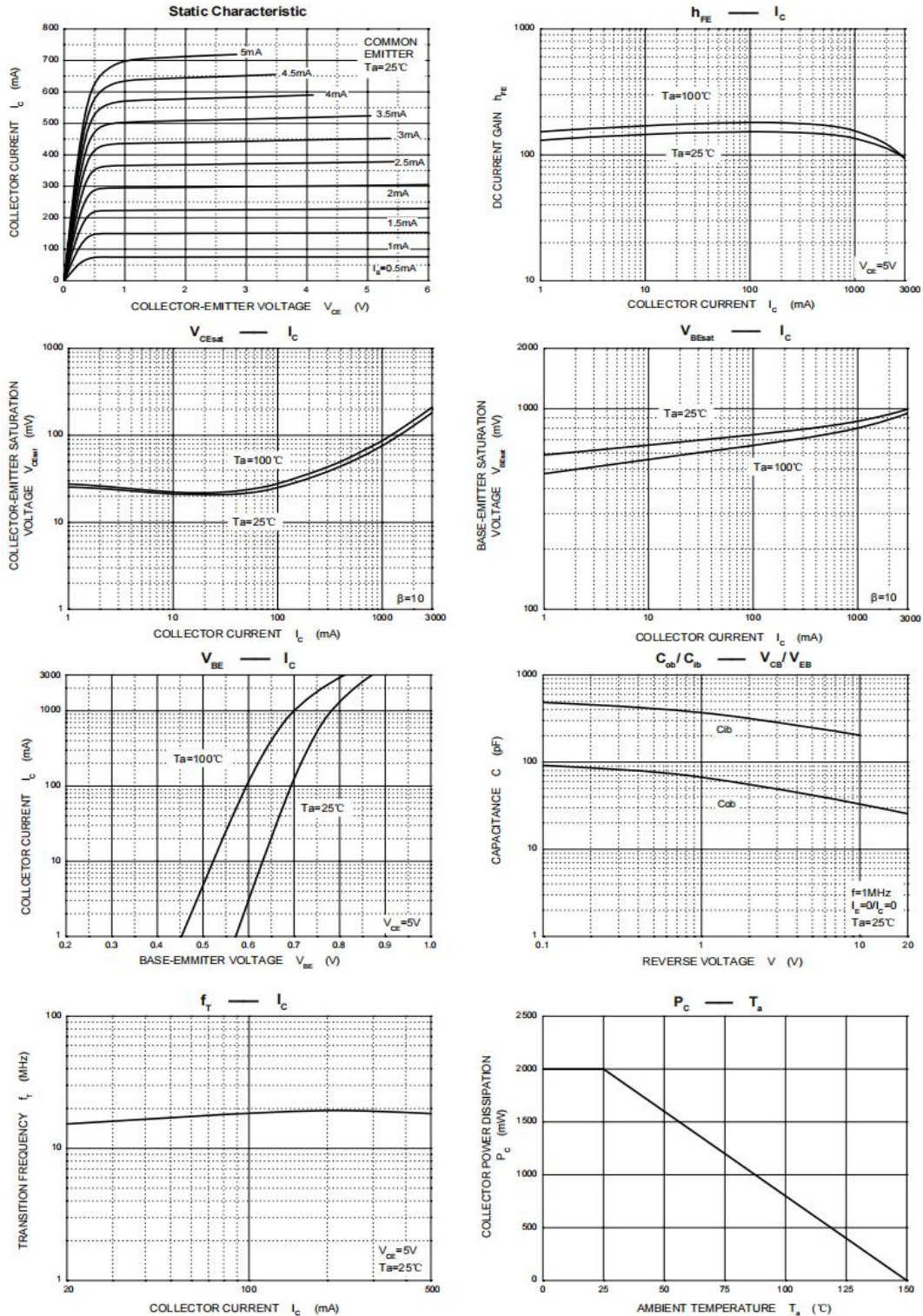
H_{FE}	100-200(O)	160-320(Y)
Mark	D2061	

■ Electrical Characteristics 电特性

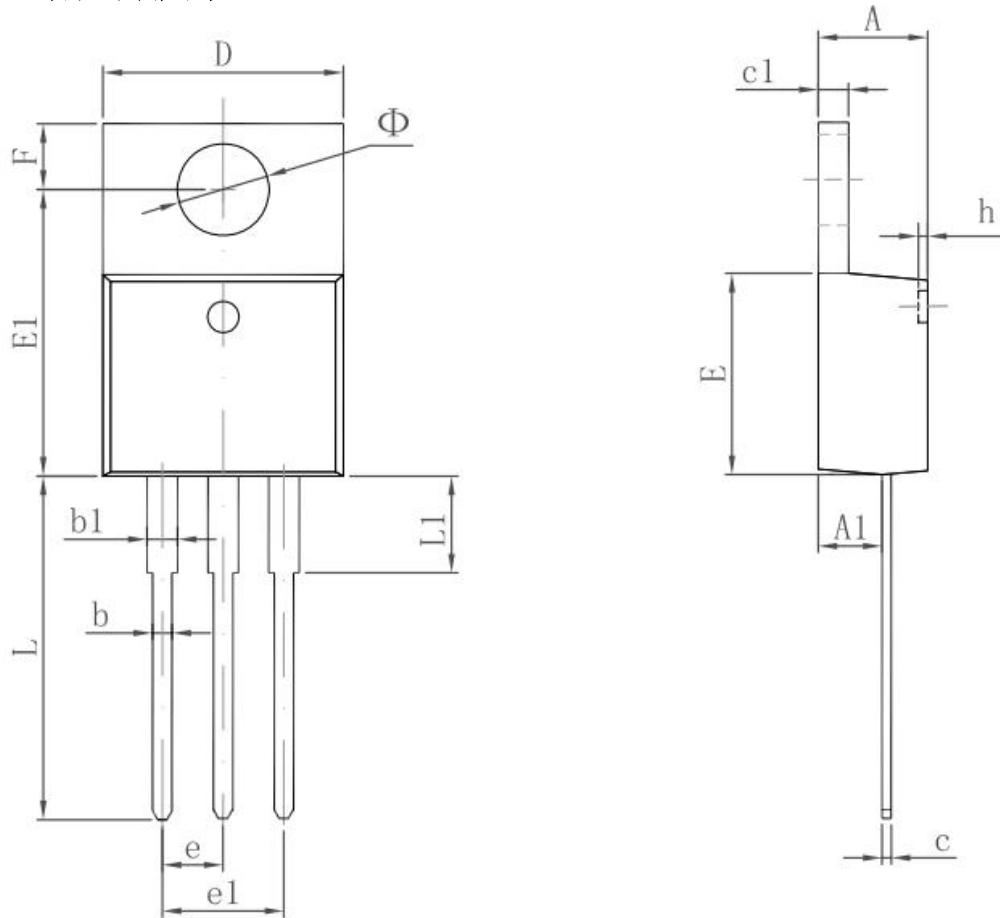
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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($I_C=50\mu\text{A}$, $I_E=0$)	BV_{CBO}	80	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压($I_C=1\text{mA}$, $I_B=0$)	BV_{CEO}	60	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压($I_E=50\mu\text{A}$, $I_C=0$)	BV_{EBO}	5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流($V_{CB}=60\text{V}$, $I_E=0$)	I_{CBO}	—	—	10	μA
Emitter-Base Leakage Current 发射极基极漏电流($V_{EB}=4\text{V}$, $I_E=0$)	I_{EBO}	—	—	10	μA
DC Current Gain 直流电流增益($V_{CE}=5\text{V}$, $I_C=0.5\text{A}$)	H_{FE}	100	—	320	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降($I_C=2\text{A}$, $I_B=0.2\text{A}$)	$V_{CE(sat)}$	—	—	1	V
Base-Emitter Saturation Voltage 基极发射极饱和压降($I_C=2\text{A}$, $I_B=0.2\text{A}$)	$V_{BE(sat)}$	—	—	1.5	V
Output Capacitance 输出电容($V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$)	C_{ob}	—	70	—	pF
Transition Frequency 特征频率($V_{CE}=5\text{V}$, $I_C=0.5\text{A}$)	f_T	—	8	—	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	4.470	4.670	0.176	0.184
A1	2.520	2.820	0.099	0.111
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.310	0.530	0.012	0.021
c1	1.170	1.370	0.046	0.054
D	10.010	10.310	0.394	0.406
E	8.500	8.900	0.335	0.350
E1	12.060	12.460	0.475	0.491
e	2.540 TYP		0.100 TYP	
e1	4.980	5.180	0.196	0.204
F	2.590	2.890	0.102	0.114
h	0.000	0.300	0.000	0.012
L	13.400	13.800	0.528	0.543
L1	3.560	3.960	0.140	0.156
Φ	3.735	3.935	0.147	0.155