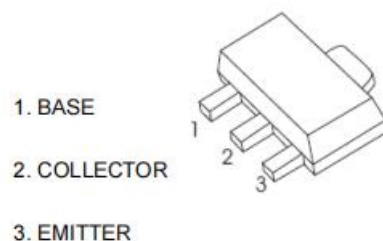


SOT-89 Bipolar Transistor 双极型三极管

Features 特点

NPN General Purpose 通用



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}	100	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	80	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	5	V
Collector Current 集电极电流	I_C	1000	mA
Power dissipation 耗散功率	$P_C(T_a=25^{\circ}\text{C})$	500	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\theta JA}$	250	$^{\circ}\text{C}/\text{W}$
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

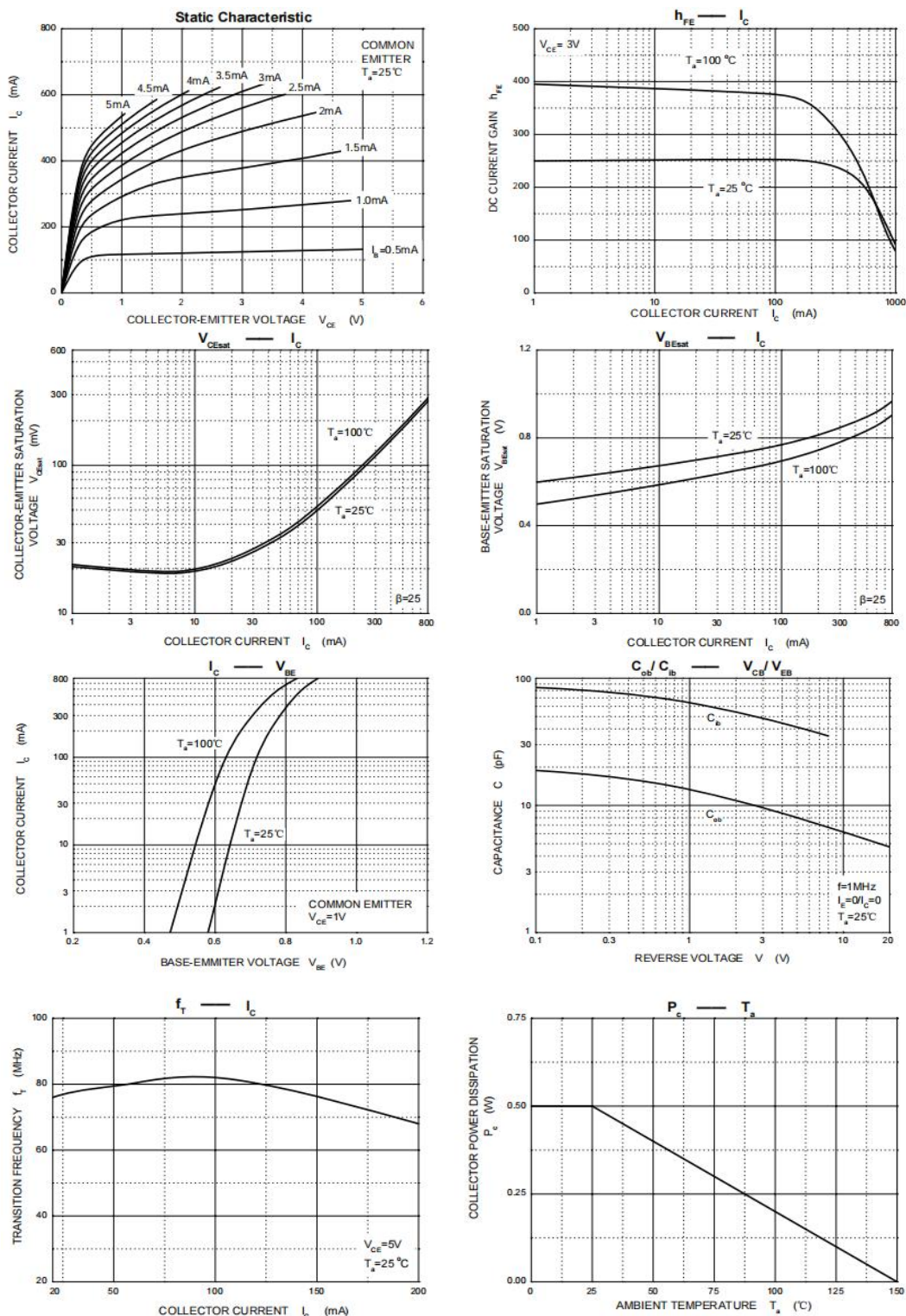
H_{FE}	82-180(P)	120-270(Q)	180-390(R)
Mark	DF RN		

Electrical Characteristics 电特性

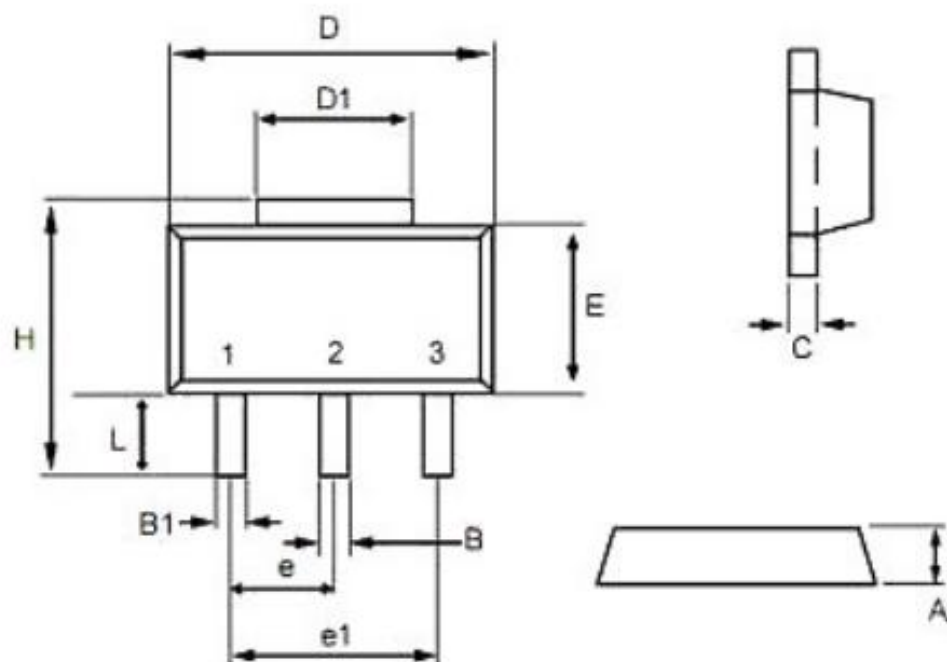
(T_A=25℃ unless otherwise noted 如无特殊说明, 温度为 25℃)

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 =50μA, I _E =0)	BV _{CBO}	100	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(I _C =2mA, I _B =0)	BV _{CEO}	80	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I _E =50μA, I _C =0)	BV _{EBO}	5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流(V _{CB} =80V, I _E =0)	I _{CBO}	—	—	1	μA
Emitter-Base Leakage Current 发射极基极漏电流(V _{EB} = 4V, I _C =0)	I _{EBO}	—	—	1	μA
DC Current Gain 直流电流增益(V _{CE} =3V, I _C =100mA)	H _{FE}	82	—	390	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降(I _C =500mA, I _B = 50mA)	V _{CE(sat)}	—	—	0.4	V
Base-Emitter Saturation Voltage 基极发射极饱和压降(I _C =500mA, I _B =50mA)	V _{BE(sat)}	—	—	1.2	V
Base-Emitter On Voltage 基极发射极导通电压(V _{CE} = 10V, I _C = 500mA)	V _{BE(on)}	—	—	1.2	V
Transition Frequency 特征频率(V _{CE} = 10V, I _C = 50mA)	f _T	—	100	—	MHz
Output Capacitance 输出电容(V _{CB} = 10V, I _E =0, f=1MHz)	C _{ob}	—	20	—	pF

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	1.40	1.60	0.055	0.063
B	0.40	0.56	0.016	0.022
B1	0.35	0.48	0.014	0.019
C	0.35	0.44	0.014	0.017
D	4.40	4.60	0.173	0.181
D1	1.35	1.83	0.053	0.072
e	1.45	1.55	0.057	0.061
e1	2.95	3.05	0.116	0.120
E	2.29	2.60	0.090	0.102
H	3.75	4.25	0.148	0.167
L	0.80	1.20	0.031	0.047