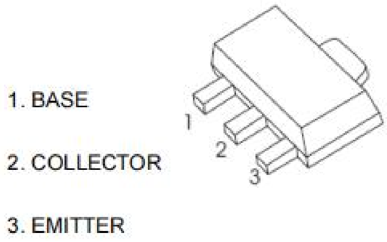
SOT-89-3L Bipolar Transistor 双极型三极管

■Features 特点



NPN High Voltage 高压

■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}	400	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	400	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	5	V
Collector Current 集电极电流	I_C	200	mA
Power dissipation 耗散功率	$P_C(T_a=25℃)$	500	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\Theta JA}$	250	℃/W
Junction and Storage Temperature 结温和储藏温度	T_J,T_{stg}	-55to+150℃	

■Device Marking 产品打标

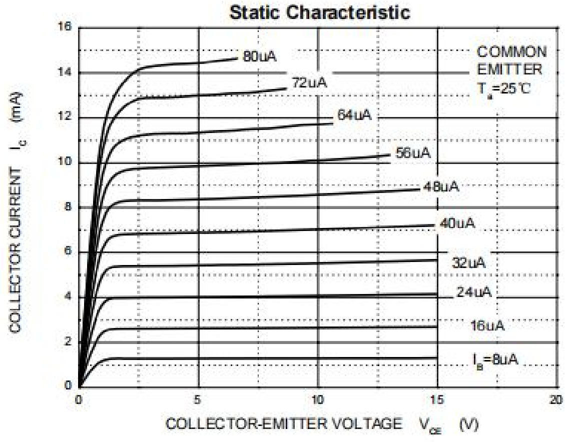
A44=A44

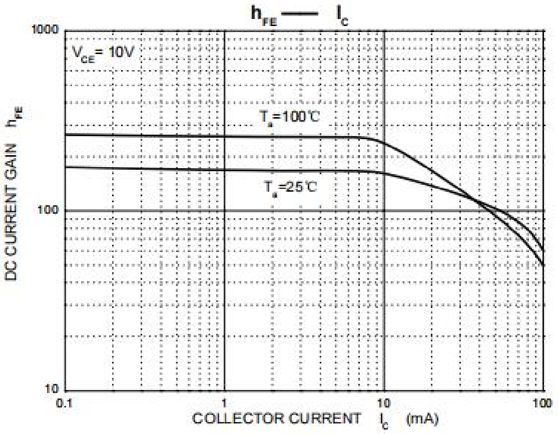
■Electrical Characteristics 电特性

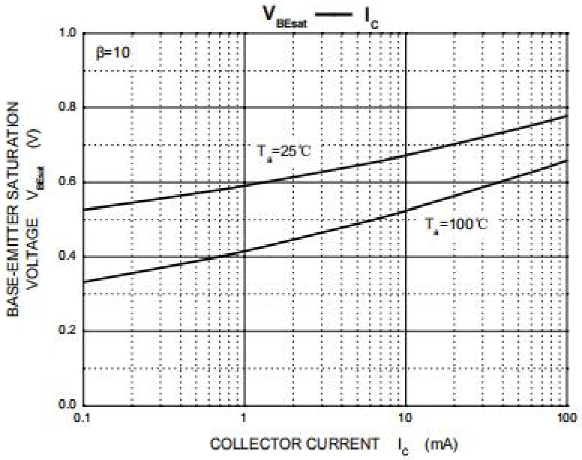
(T_A=25℃ unless otherwise noted 如无特殊说明，温度为 25℃)

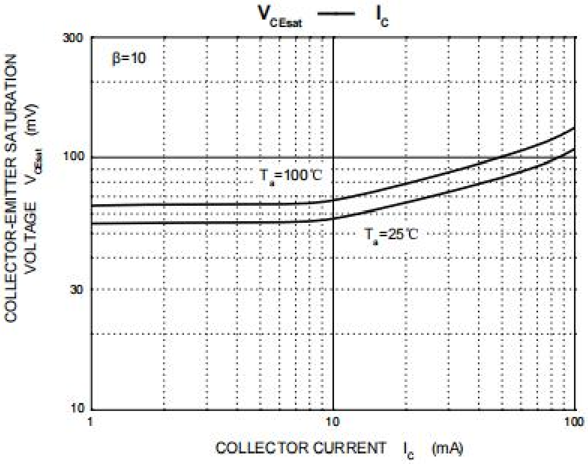
Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector-Base Breakdown Voltage 集电极基极击穿电压(I_C= 100μA，I_E=0)	BV_{CBO}	400	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(I_C= 1mA，I_B=0)	BV_{CEO}	400	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I_E= 100μA，I_C=0)	BV_{EBO}	5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流(V_{CB}= 400V，I_E=0)	I_{CBO}	—	—	100	nA
Collector-Emitter Leakage Current 集电极发射极漏电流(V_{CE}= 400V，I_B=0)	I_{CEO}	—	—	5	μA
Emitter-Base Leakage Current 发射极基极漏电流(V_{EB}= 5V，I_C=0)	I_{EBO}	—	—	100	nA
DC Current Gain 直流电流增益(V_{CE}= 10V，I_C= 1mA)	$H_{FE}(1)$	70	—	—	
DC Current Gain 直流电流增益(V_{CE}= 10V，I_C= 10mA)	$H_{FE}(2)$	100	—	200	
DC Current Gain 直流电流增益(V_{CE}= 10V，I_C= 50mA)	$H_{FE}(3)$	40	—	—	
DC Current Gain 直流电流增益(V_{CE}= 10V，I_C= 100mA)	$H_{FE}(4)$	40	—	—	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降(I_C= 10mA，I_B= 1mA) (I_C= 50mA，I_B= 5mA)	$V_{CE(sat)}$	—	—	0.2 0.3	V
Base-Emitter Saturation Voltage 基极发射极饱和压降(I_C= 10mA，I_B= 1mA)	$V_{BE(sat)}$	—	—	0.75	V
Transition Frequency 特征频率(V_{CE}= 20V，I_C= 10mA)	f_T	50	—	—	MH$_Z$
Output Capacitance 输出电容(V_{CB}= 20V，I_E=0, f=1MH$_Z$)	Cob	—	6	—	pF

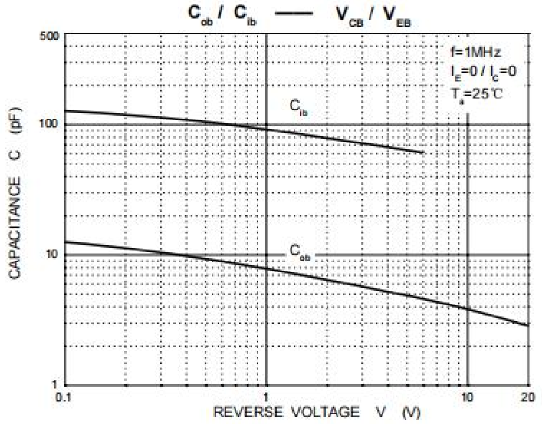
■Typical Characteristic Curve 典型特性曲线

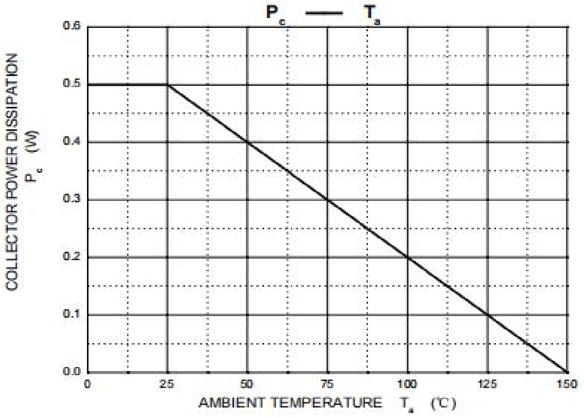

Static Characteristic


h_{FE} —— I_C

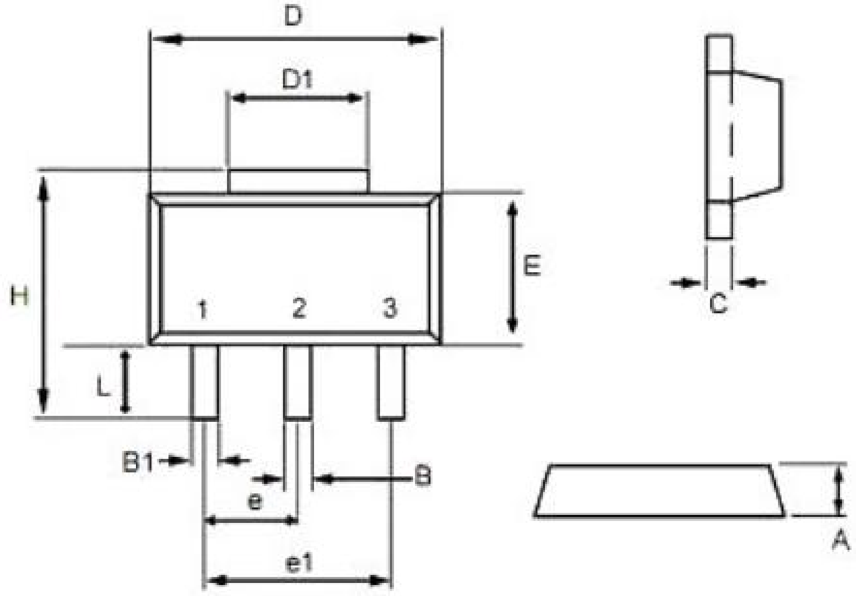

V_{BEsat} —— I_C


V_{CEsat} —— I_C


C_{ob} / C_{ib} —— V_{CB} / V_{EB}


P_c —— T_a

■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