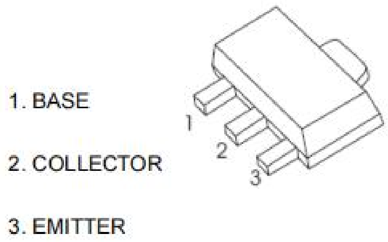
SOT-89-3L Bipolar Transistor 双极型三极管



■Features 特点

PNP Switching 开关

■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}	-60	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	-600	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

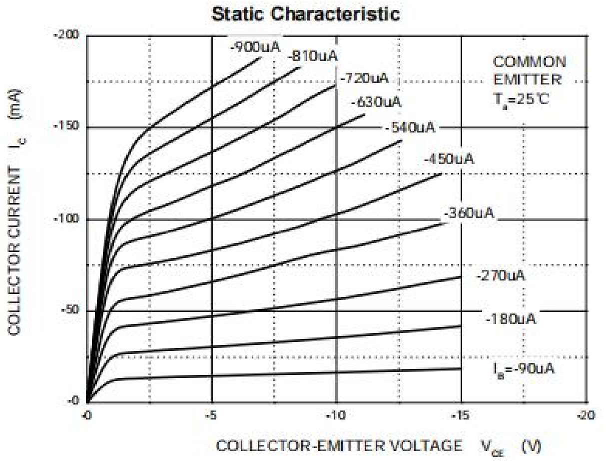
PXT2907A=P2F

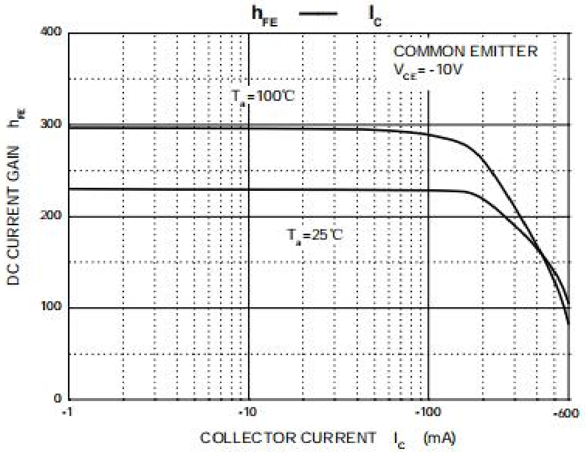
■Electrical Characteristics 电特性

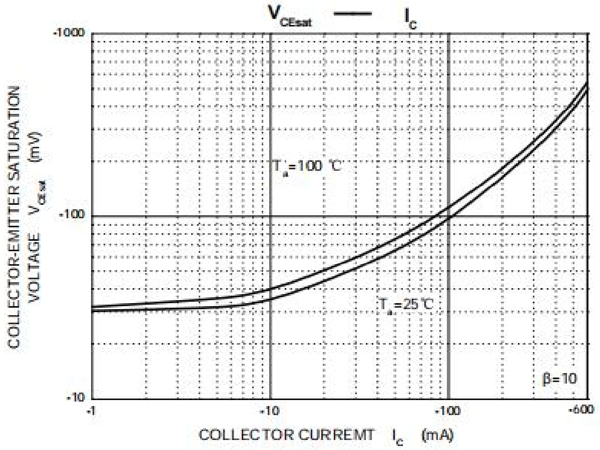
(T_A=25℃ unless otherwise noted 如无特殊说明，温度为 25℃)

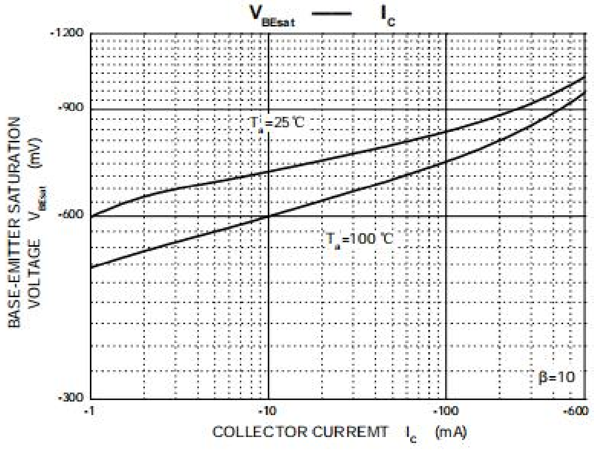
Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector-Base Breakdown Voltage 集电极基极击穿电压(I_C= -1mA，I_E=0)	BV_{CBO}	-60	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(I_C= -10mA，I_B=0)	BV_{CEO}	-60	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I_E= -1mA，I_C=0)	BV_{EBO}	-5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流(V_{CB}= -50V，I_E=0)	I_{CBO}	—	—	-100	nA
Collector-Emitter Leakage Current 集电极发射极漏电流(V_{CE}= -35V,V_{BE}= 0.5V)	I_{CEX}	—	—	-100	nA
Emitter-Base Leakage Current 发射极基极漏电流(V_{EB}= -4V，I_C=0)	I_{EBO}	—	—	-100	nA
DC Current Gain(V_{CE}= -10V，I_C= -0.1mA) 直流电流增益(V_{CE}= -10V，I_C= -150mA) (V_{CE}= -10V，I_C= -500mA)	H_{FE}	75 100 50	—	300	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降(I_C= -500mA,I_B= -50mA) (I_C= -150mA,I_B= -15mA)	$V_{CE(sat)}$	—	—	-0.6 -0.4	V
Base-Emitter Saturation Voltage 基极发射极饱和压降(I_C= -500mA,I_B= -50mA) (I_C= -150mA,I_B= -15mA)	$V_{BE(sat)}$	—	—	-2.6 -1.3	V
Transition Frequency 特征频率(V_{CE}= -20V，I_C= -20mA)	f_T	200	—	—	MHz
Delay Time 延迟时间 (V_{CC}= -30V,V_{BE}=0.5V,I_C= -150mA,I_{B1}= -15mA)	t_d	—	—	10	ns
Rise Time 上升时间 (V_{CC}= -30V,V_{BE}=0.5V,I_C= -150mA,I_{B1}= -15mA)	t_r	—	—	25	ns
Storage Time 贮存时间 (V_{CC}= -30V,V_{BE}=0.5V,I_C= -150mA,I_{B1}= -15mA)	t_s	—	—	225	ns
Fall Time 下降时间 (V_{CC}= -30V,V_{BE}=0.5V,I_C= -150mA,I_{B1}= -15mA)	t_f	—	—	60	ns

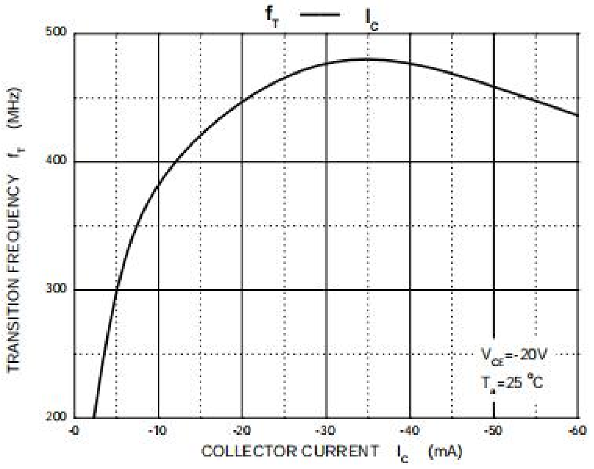
■Typical Characteristic Curve 典型特性曲线

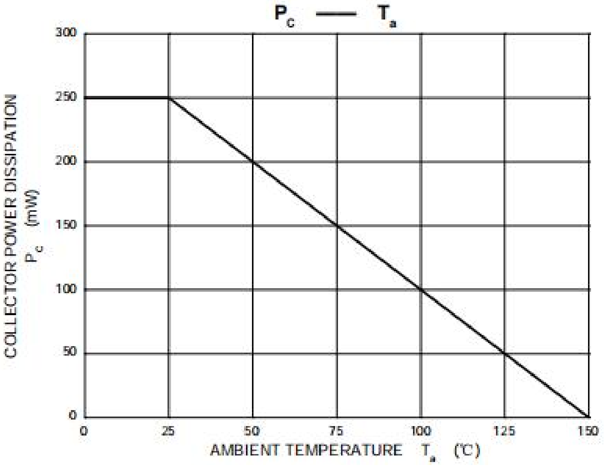

Static Characteristic


h_{FE} — I_C

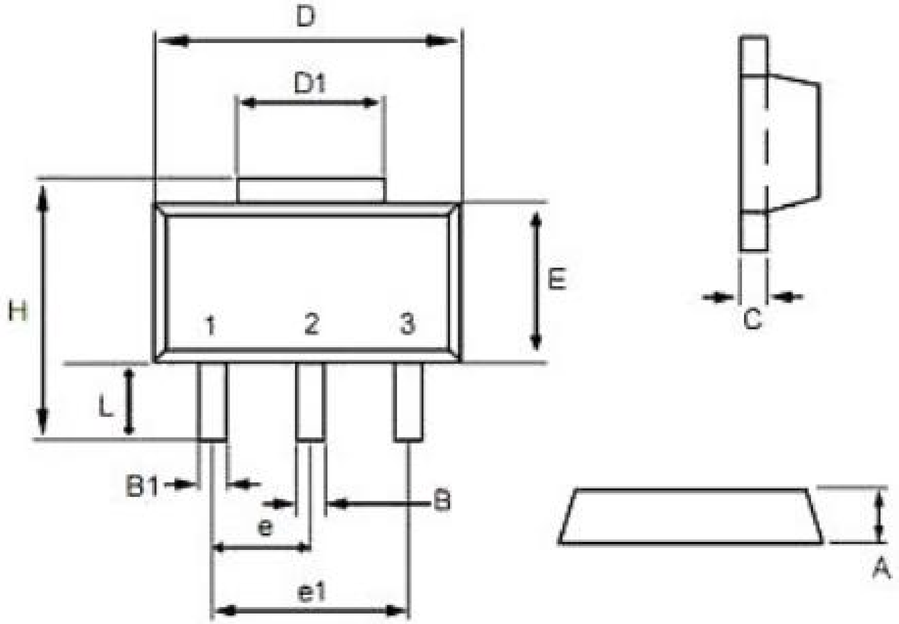

V_{CEsat} — I_C


V_{BEsat} — I_C


f_T — I_C


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