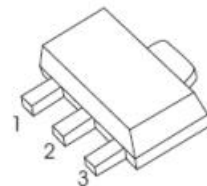


SOT-89 Bipolar Transistor 双极型三极管

■ **Features 特点**

PNP Low Saturation Voltage 低饱和压降

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



■ **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}	-50	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	-50	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	-5	V
Collector Current 集电极电流	I_C	-2000	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**

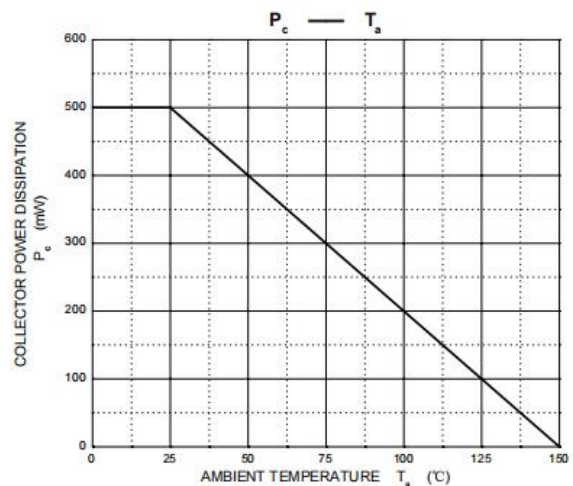
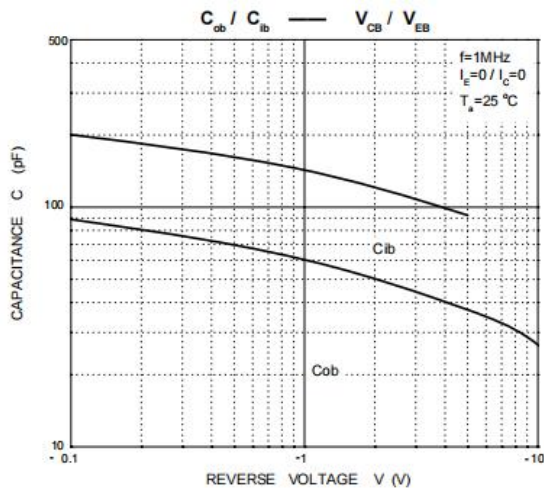
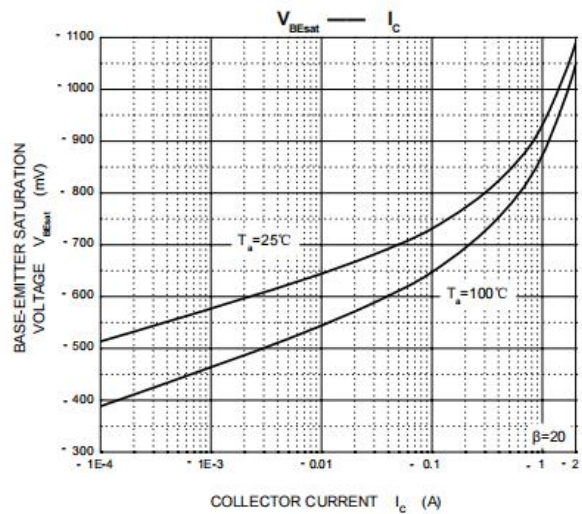
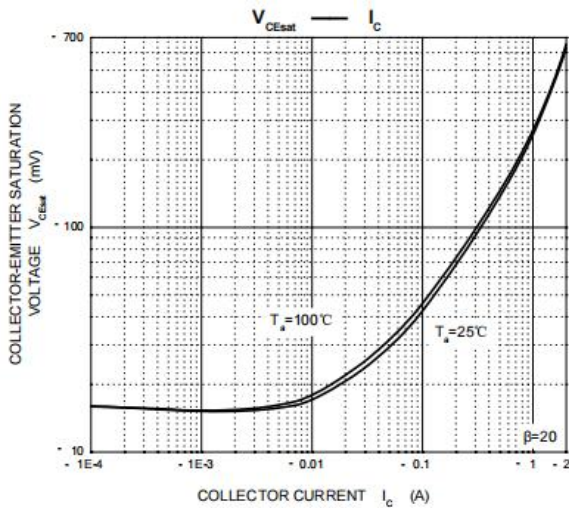
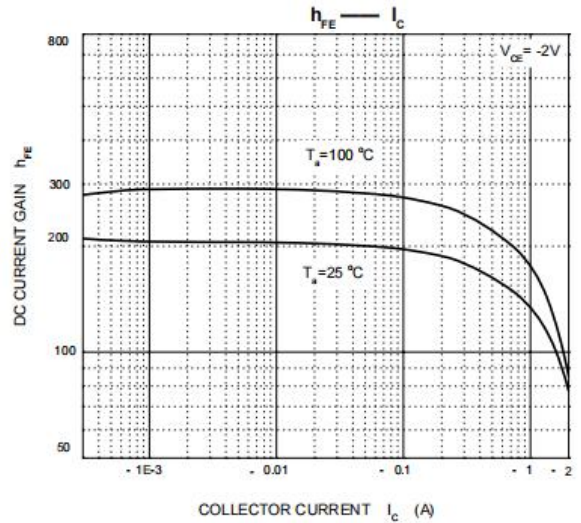
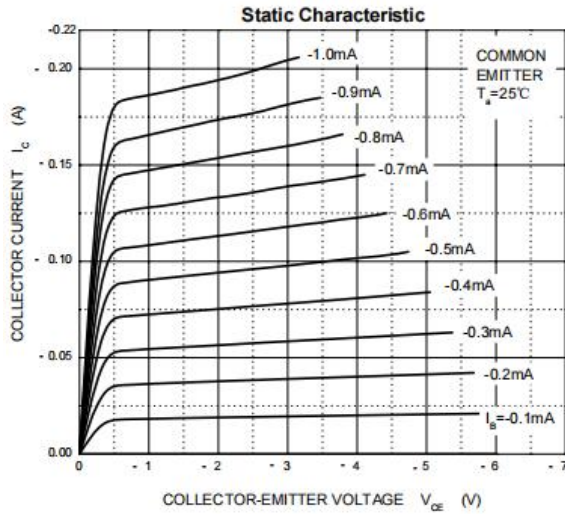
H_{FE}	180-450
Mark	DL

■ Electrical Characteristics 电特性

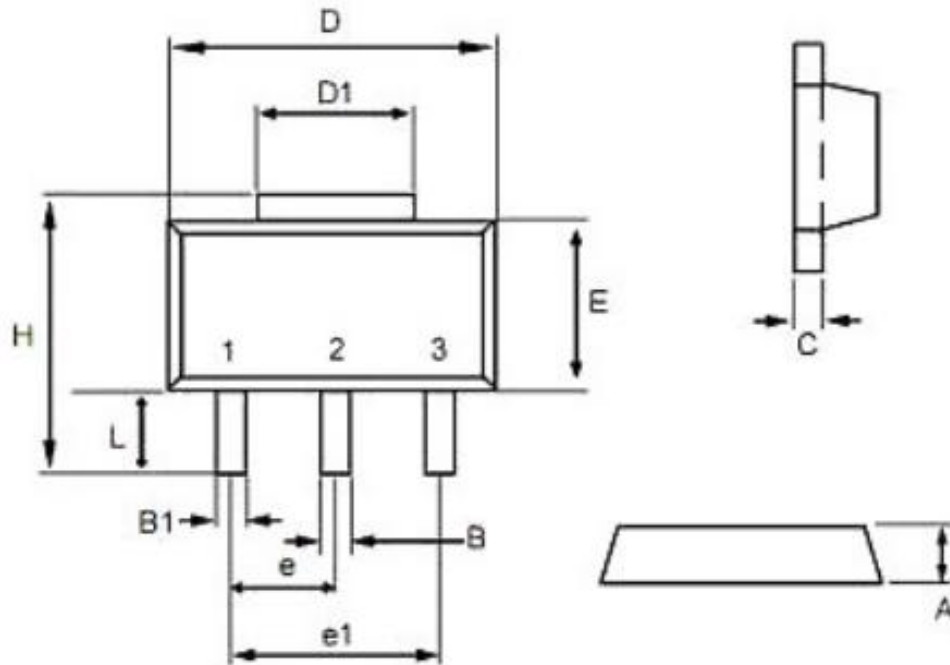
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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($I_C = -100\mu\text{A}$, $I_E = 0$)	BV_{CBO}	-50	—	—	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}	-50	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压($I_E = -100\mu\text{A}$, $I_C = 0$)	BV_{EBO}	-5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流($V_{CB} = -50\text{V}$, $I_E = 0$)	I_{CBO}	—	—	-1	μA
Emitter-Base Leakage Current 发射极基极漏电流($V_{EB} = -5\text{V}$, $I_C = 0$)	I_{EBO}	—	—	-1	μA
DC Current Gain 直流电流增益($V_{CE} = -2\text{V}$, $I_C = -50\text{mA}$)	H_{FE}	180	—	450	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降($I_C = -700\text{mA}$, $I_B = -35\text{mA}$)	$V_{CE(sat)}$	—	—	-0.4	V
Base-Emitter Saturation Voltage 基极发射极饱和压降($I_C = -500\text{mA}$, $I_B = -50\text{mA}$)	$V_{BE(sat)}$	—	—	-1.2	V
Transition Frequency 特征频率($V_{CE} = -2\text{V}$, $I_C = -500\text{mA}$)	f_T	—	320	—	MHz
Output Capacitance 输出电容($V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$)	C_{ob}	—	30	—	pF
Turn-on Time 开通时间 ($V_{CC} = -10\text{V}$, $I_C = -1500\text{mA}$, $I_{B1} = -I_{B2} = -150\text{mA}$)	t_{on}	—	45	—	ns
Storage Time 贮存时间 ($V_{CC} = -10\text{V}$, $I_C = -1500\text{mA}$, $I_{B1} = -I_{B2} = -150\text{mA}$)	t_s	—	250	—	ns
Fall Time 下降时间 ($V_{CC} = -10\text{V}$, $I_C = -1500\text{mA}$, $I_{B1} = -I_{B2} = -150\text{mA}$)	t_f	—	35	—	ns

■ 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