



安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

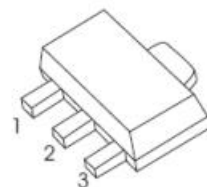
2SD1119

SOT-89 Bipolar Transistor 双极型三极管

■ Features 特点

NPN 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}	40	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	25	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	7	V
Collector Current 集电极电流	I_C	3000	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}	230-380(Q)	340-600(R)
Mark	TQ	TR

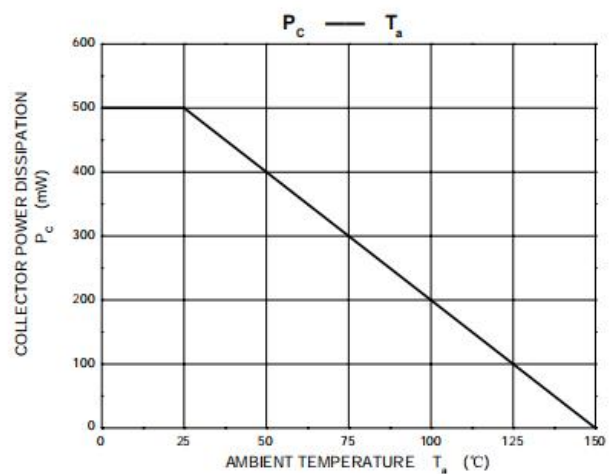
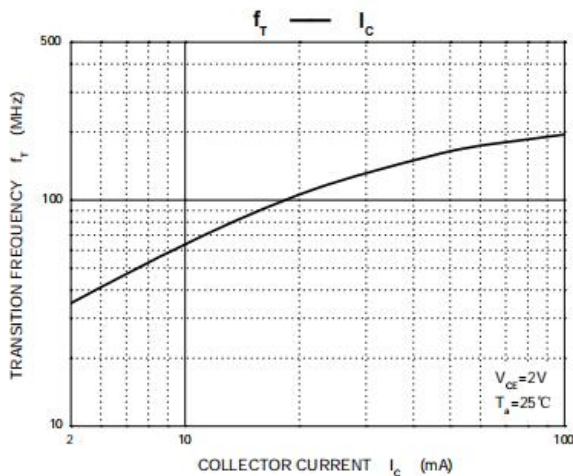
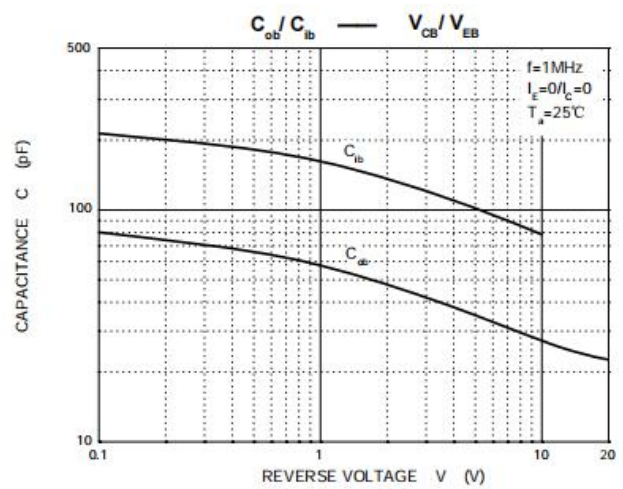
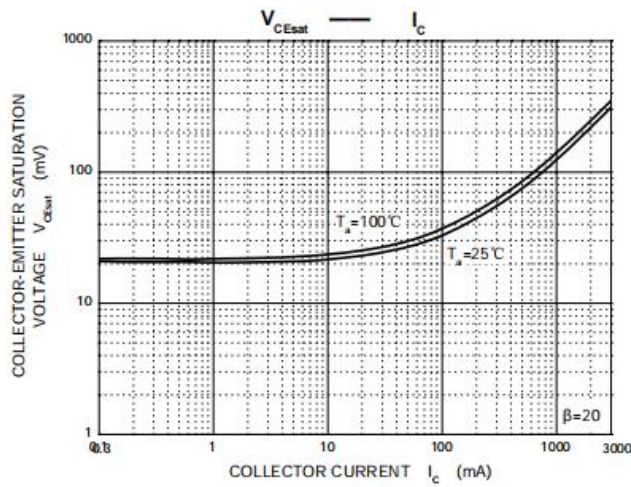
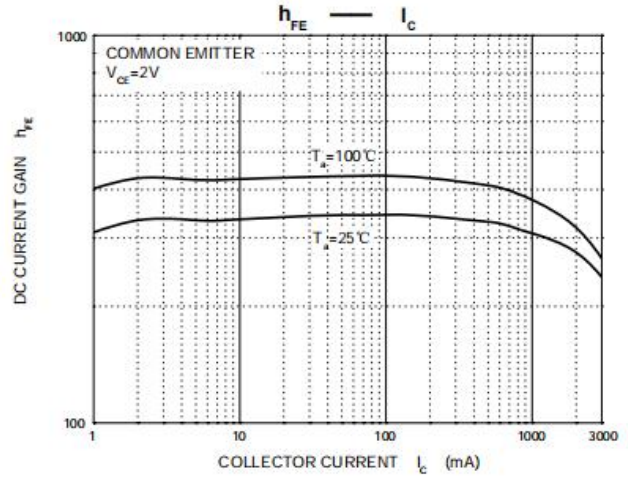
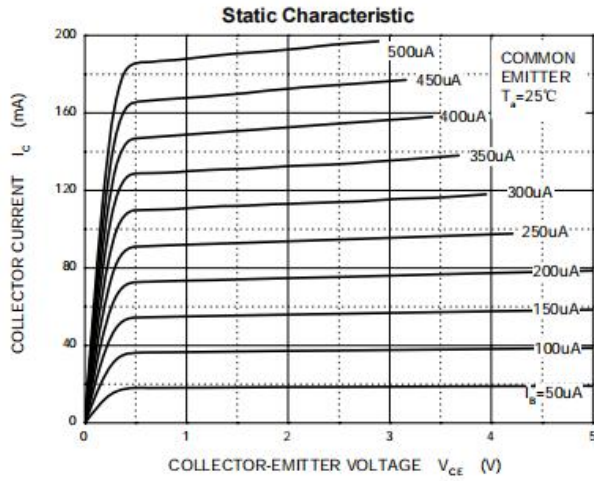


■ Electrical Characteristics 电特性

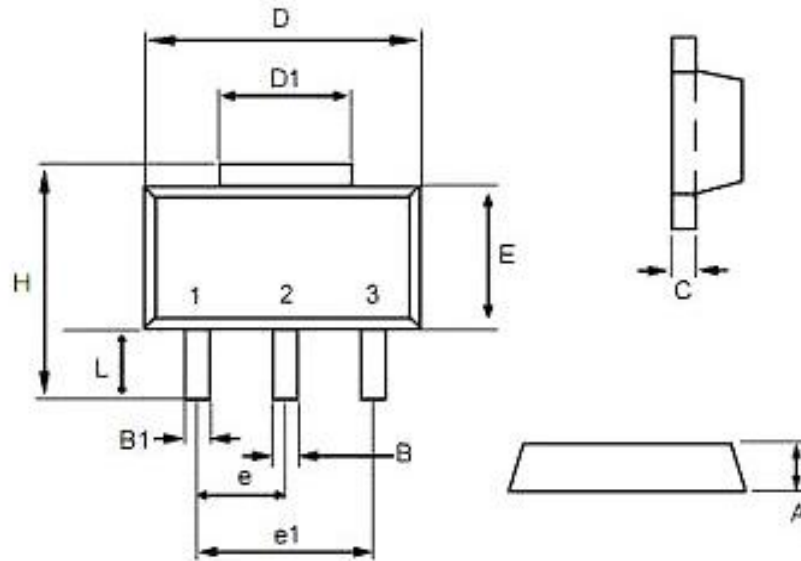
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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}	40	—	—	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}	25	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压($I_E=10\mu\text{A}$, $I_C=0$)	BV_{EBO}	7	—	—	V
Collector-Base Leakage Current 集电极基极漏电流($V_{CB}=10\text{V}$, $I_E=0$)	I_{CBO}	—	—	0.1	μA
Collector-Base Leakage Current 集电极基极漏电流($V_{EB}=6\text{V}$, $I_E=0$)	I_{EBO}	—	—	0.1	μA
DC Current Gain($V_{CE}=2\text{V}$, $I_C=500\text{mA}$) 直流电流增益($V_{CE}=2\text{V}$, $I_C=1000\text{mA}$)	H_{FE}	230 150	—	600	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降($I_C=3\text{A}$, $I_B=100\text{mA}$)	$V_{CE(sat)}$	—	—	1	V
Output Capacitance 输出电容($V_{CB}=20\text{V}$, $I_E=0$, $f=1\text{MHz}$)	C_{ob}	—	50	—	pF
Transition Frequency 特征频率($V_{CE}=6\text{V}$, $I_C=50\text{mA}$)	f_T	—	150	—	MHz

Typical Characteristic Curve 典型特性曲线



■Dimension 外形封装尺寸



Dim	min	max
A	1.40	1.60
B	0.40	0.56
B1	0.35	0.48
C	0.35	0.44
D	4.40	4.60
D1	1.35	1.83
e	1.50 BSC	
e1	3.00 BSC	
E	2.29	2.60
H	3.75	4.25
L	0.80	1.20