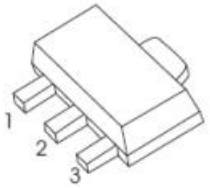
安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO. , LTD.

2SD2391

SOT-89 Bipolar Transistor 双极型三极管



1. BASE
2. COLLECTOR
3. EMITTER

■Features 特点

NPN Low Saturation Voltage 低饱和压降

■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}	6	V
Collector Current 集电极电流	I_C	2000	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

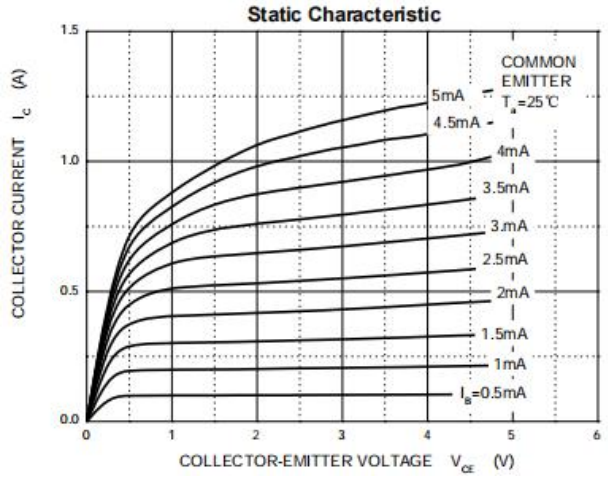
H_{FE}	82-180(P)	120-270(Q)	180-390(R)
Mark	DTP*	DTQ*	DTR*

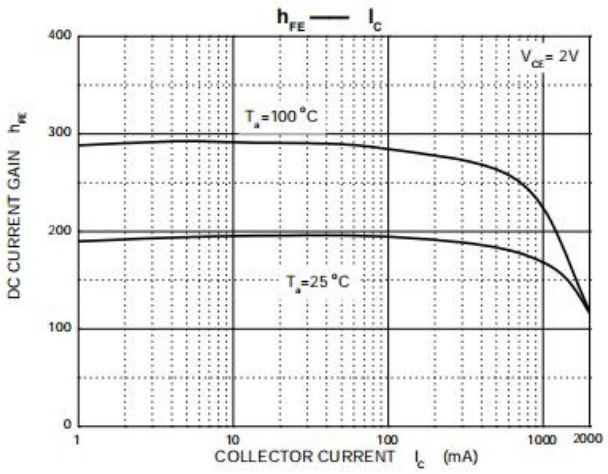
■Electrical Characteristics 电特性

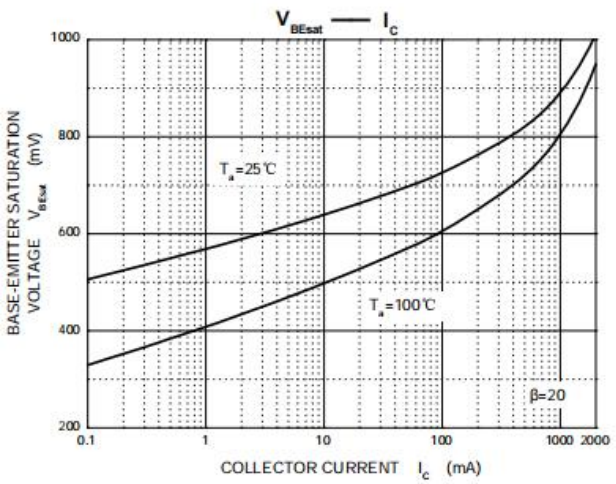
(T_A=25℃ unless otherwise noted 如无特殊说明，温度为 25℃)

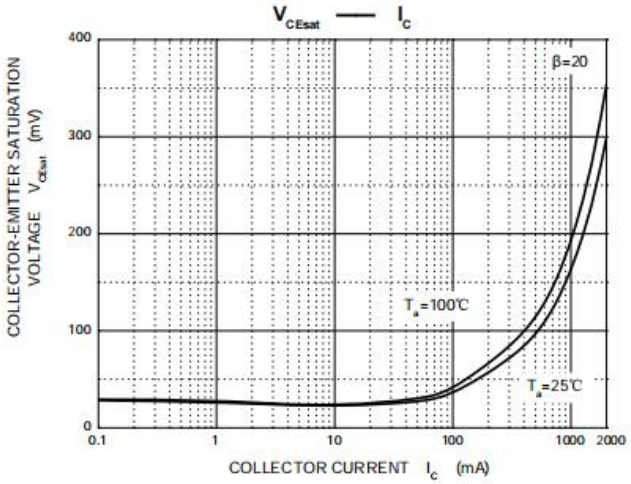
Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector-Base Breakdown Voltage 集电极基极击穿电压 (I_C= 100μA，I_E=0)	BV_{CBO}	60	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压 (I_C= 1mA，I_B=0)	BV_{CEO}	60	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压 (I_E= 100μA，I_C=0)	BV_{EBO}	6	—	—	V
Collector-Base Leakage Current 集电极基极漏电流 (V_{CB}= 50V，I_E=0)	I_{CBO}	—	—	100	nA
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(V_{CE}= 2V，I_C= 500mA) 直流电流增益(V_{CE}= 2V，I_C= 1500mA)	H_{FE}	82 45	—	390	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降 (I_C= 1000mA，I_B= 50mA)	$V_{CE(sat)}$	—	—	350	mV
Base-Emitter Saturation Voltage 基极发射极饱和压降 (I_C= 1000mA，I_B= 50mA)	$V_{BE(sat)}$	—	—	1200	mV
Transition Frequency 特征频率 (V_{CE}= 2V，I_C= 500mA)	f_T	—	210	—	MHz
Output Capacitance 输出电容 (V_{CB}= 10V，I_E=0, f=1MHz)	C_{ob}	—	21	—	pF

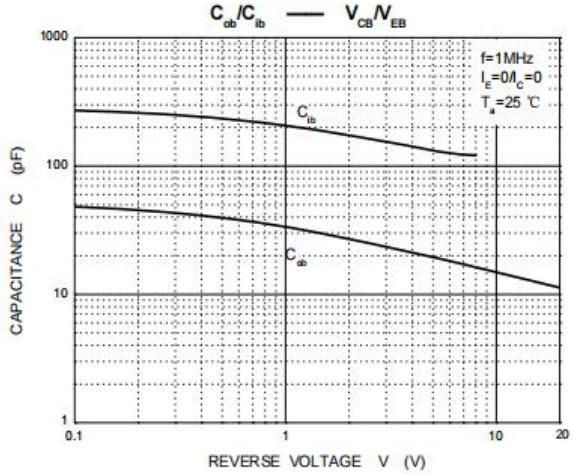
■Typical Characteristic Curve 典型特性曲线

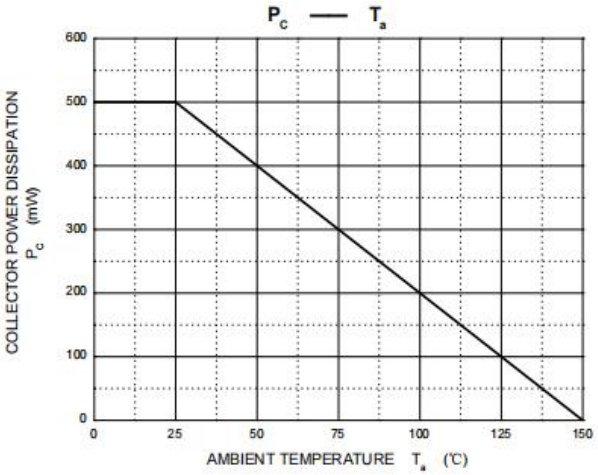




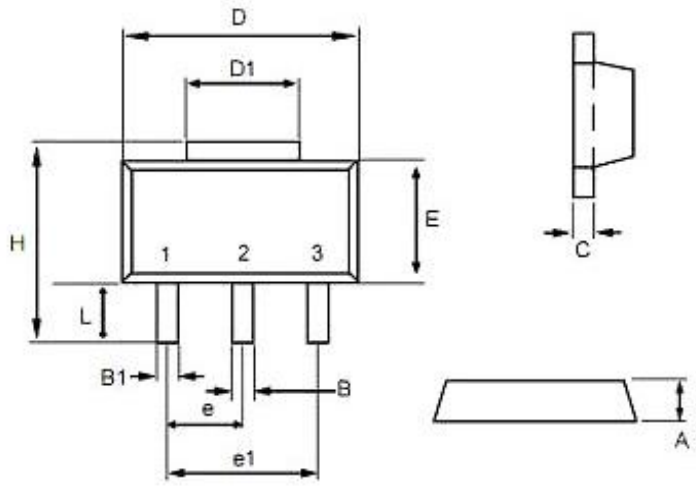








■**Dimension** 外形封装尺寸



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