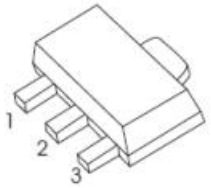
安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO. , LTD.

2SC4115

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}	40	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	20	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	6	V
Collector Current 集电极电流	I_C	3000	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}	120-270(Q)	180-390(R)	270-560(S)
Mark	4115Q	4115R	4115S

■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= 50μA，I_E=0)	BV_{CBO}	40	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(I_C= 1mA，I_B=0)	BV_{CEO}	20	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I_E= 50μA，I_C=0)	BV_{EBO}	6	—	—	V
Collector-Base Leakage Current 集电极基极漏电流(V_{CB}= 30V，I_E=0)	I_{CBO}	—	—	0.1	μA
Emitter-Base Leakage Current 发射极基极漏电流(V_{EB}= 5V，I_C=0)	I_{EBO}	—	—	0.1	μA
DC Current Gain 直流电流增益(V_{CE}= 2V，I_C= 100mA)	H_{FE}	120	—	560	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降(I_C= 2A，I_B= 100mA)	$V_{CE(sat)}$	—	—	0.5	V
Base-Emitter Saturation Voltage 基极发射极饱和压降(I_C= 2A，I_B= 100mA)	$V_{BE(sat)}$	—	—	1.2	V
Transition Frequency 特征频率(V_{CE}= 2V，I_C= 500mA)	f_T	—	290	—	MH_Z
Output Capacitance 输出电容(V_{CB}= 10V，I_E=0, f=1MH_Z)	C_{ob}	—	60	—	pF

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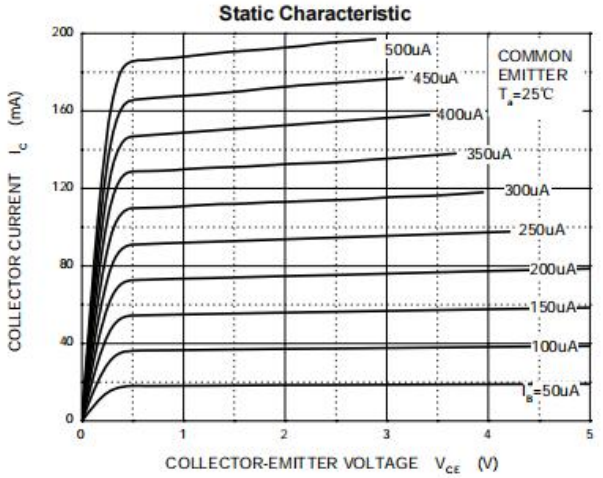
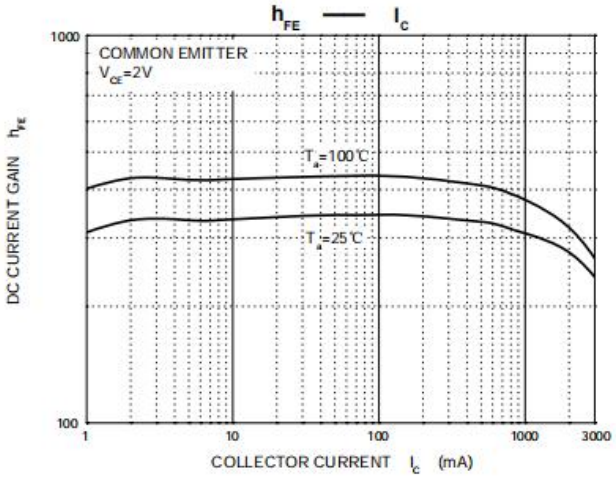
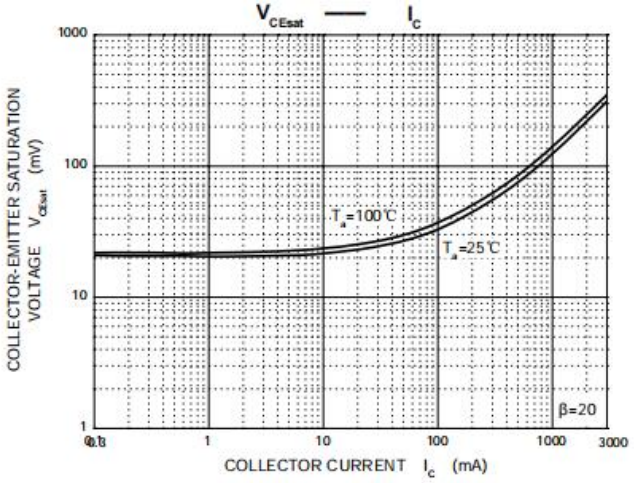
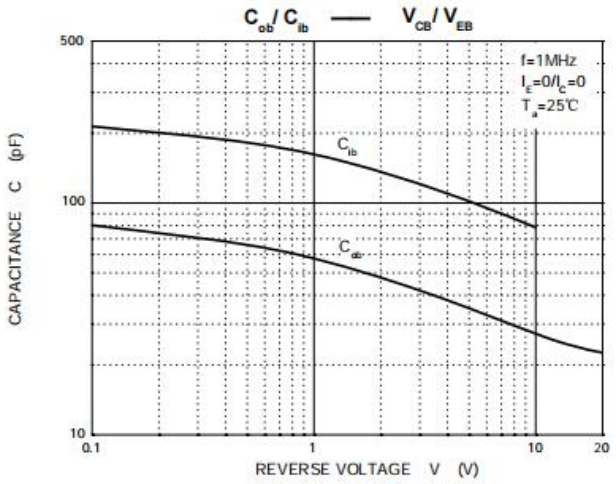
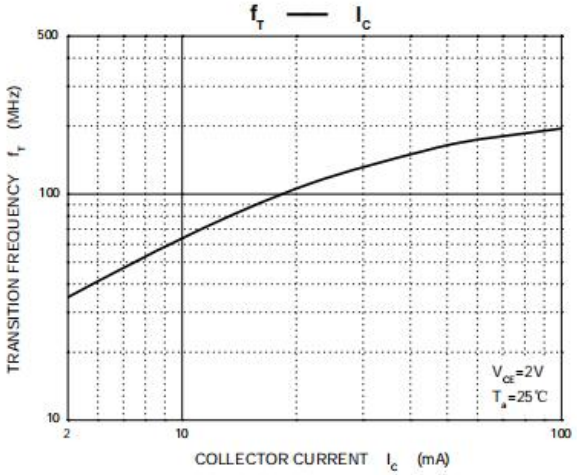
■Typical Characteristic Curve 典型特性曲线

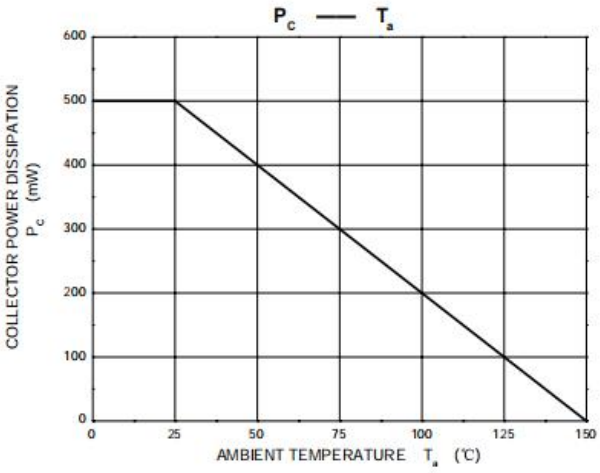




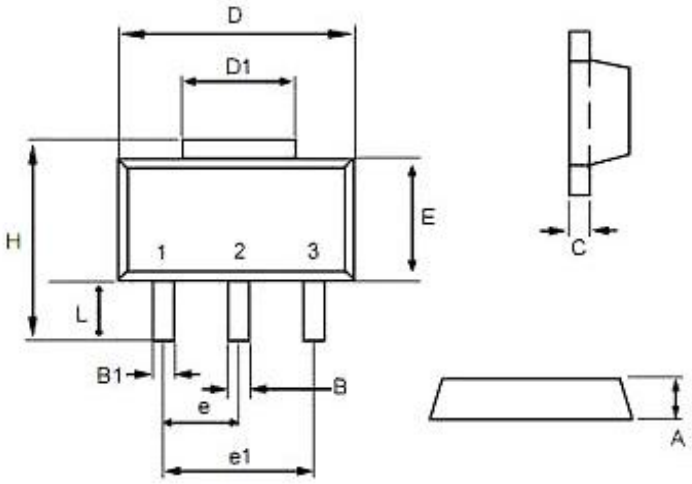








■**Dimension** 外形封装尺寸



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