



# 安徽富信半导体科技有限公司

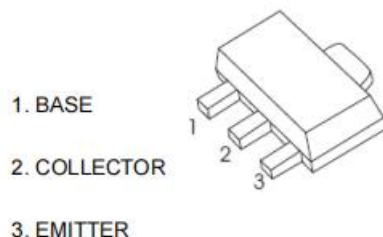
ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

BCX51/BCX52/BCX53

## SOT-89 Bipolar Transistor 双极型三极管

### ■ Features 特点

PNP General Purpose 通用



### ■ Absolute Maximum Ratings 最大额定值

Characteristic 特性参数	Symbol 符号	BCX51/ -10/-16	BCX52/ -10/-16	BCX53/ -10/-16	Unit 单位
Collector-Base Voltage 集电极基极电压	$V_{CBO}$	-45	-60	-100	V
Collector-Emitter Voltage 集电极发射极电压	$V_{CEO}$	-45	-60	-80	V
Emitter-Base Voltage 发射极基极电压	$V_{EBO}$		-5		V
Collector Current 集电极电流	$I_C$		-1000		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

$H_{FE}(2)$		63-250	63-160(-10)	100-250(-16)
Mark	BCX51	AA	AC	AD
	BCX52	AE	AG	AM
	BCX53	AH	AK	AL

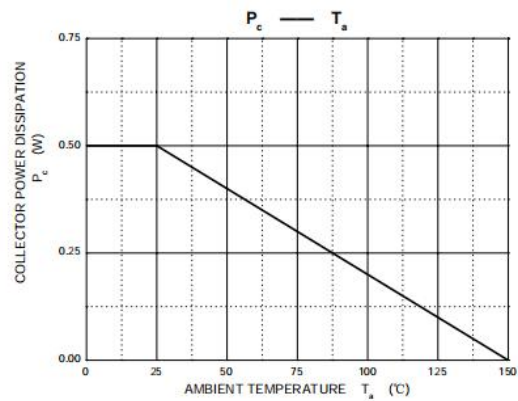
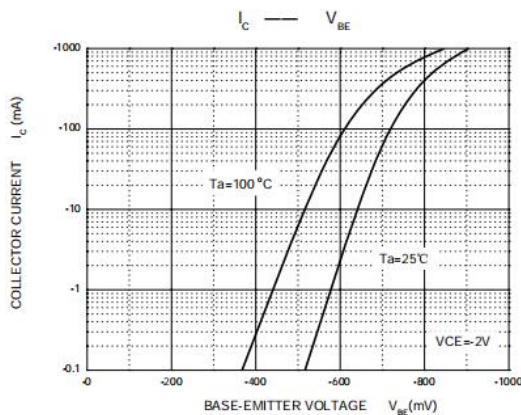
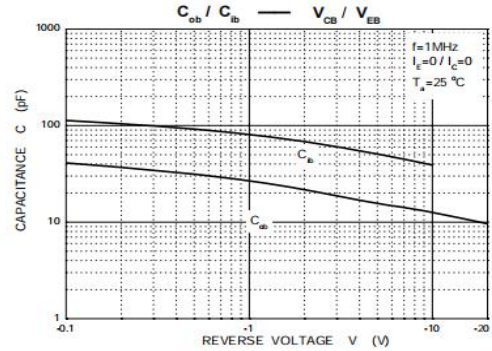
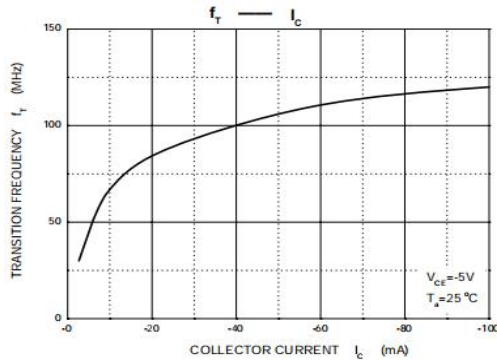
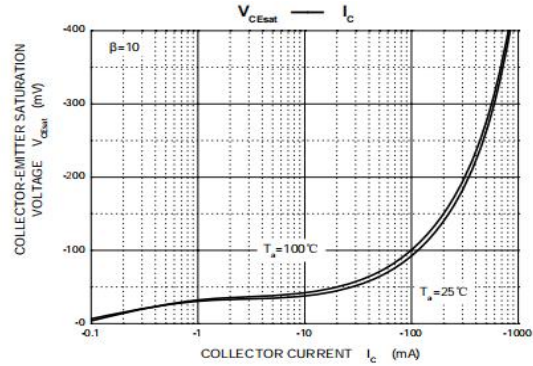
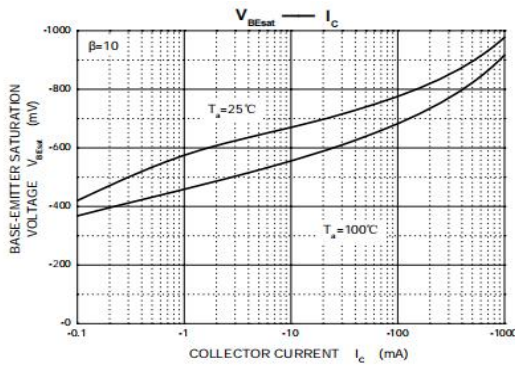
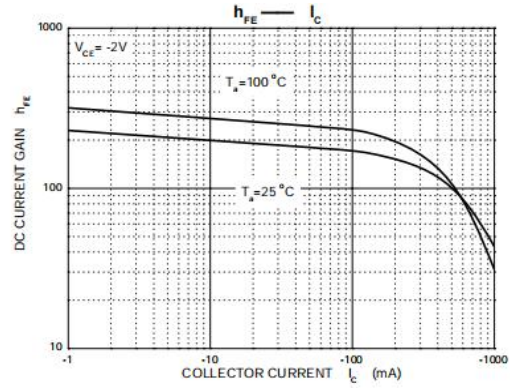
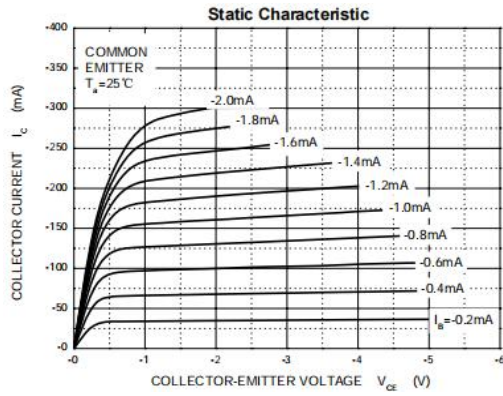


## ■ Electrical Characteristics 电特性

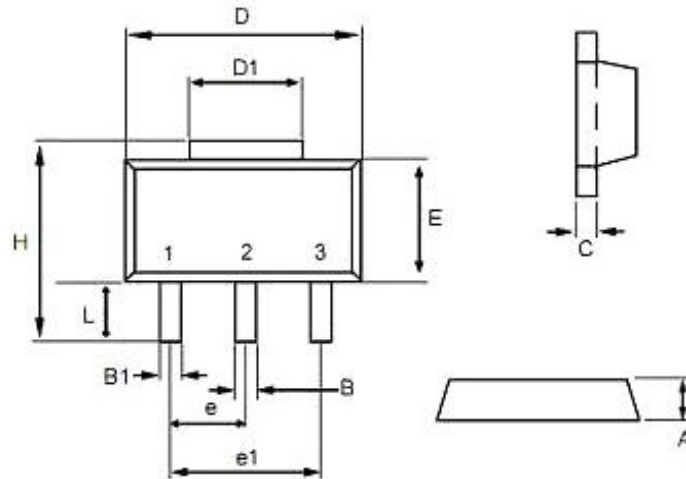
(TA=25°C unless otherwise noted 如无特殊说明, 温度为 25°C)

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 <sub>C</sub> = -100uA, I <sub>E</sub> =0)	BCX51/-10/-16 BCX52/-10/-16 BCX53/-10/-16	BV <sub>CBO</sub>	-45 -60 -100	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压 (I <sub>C</sub> = -10mA, I <sub>B</sub> =0)	BCX51/-10/-16 BCX52/-10/-16 BCX53/-10/-16	BV <sub>CEO</sub>	-45 -60 -80	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I <sub>E</sub> = -100uA, I <sub>C</sub> =0)		BV <sub>EBO</sub>	-5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流	BCX51/-10/-16 (V <sub>CB</sub> = -30V, I <sub>E</sub> =0) BCX52/-10/-16 (V <sub>CB</sub> = -50V, I <sub>E</sub> =0) BCX53/-10/-16 (V <sub>CB</sub> = -80V, I <sub>E</sub> =0)	I <sub>CBO</sub>	—	—	-100	nA
Emitter-Base Leakage Current 发射极基极漏电流(V <sub>EB</sub> = -5V, I <sub>C</sub> =0)		I <sub>EBO</sub>	—	—	-100	nA
DC Current Gain 直流电流增益(V <sub>CE</sub> = -2V, I <sub>C</sub> = -5mA)		H <sub>FE</sub> (1)	63	—	—	
DC Current Gain 直流电流增益 (V <sub>CE</sub> =-2V, I <sub>C</sub> =-0.15A)	BCX51/BCX52/BCX53 BCX51/BCX52/BCX53-10 BCX51/BCX52/BCX53-16	H <sub>FE</sub> (2)	63 63 100	—	250 160 250	
DC Current Gain 直流电流增益(V <sub>CE</sub> = -2V, I <sub>C</sub> = -0.5A)		H <sub>FE</sub> (3)	40	—	—	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降(I <sub>C</sub> = -0.5A, I <sub>B</sub> = -50mA)		V <sub>CE(sat)</sub>	—	—	-0.5	V
Base-Emitter Saturation Voltage 基极发射极饱和压降(I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA)		V <sub>BE(sat)</sub>	—	—	-1	V
Base-Emitter On Voltage 基极发射极导通电压(V <sub>CE</sub> = -2V, I <sub>C</sub> = -0.5A)		V <sub>BE(on)</sub>	—	—	-1	V
Transition Frequency 特征频率(V <sub>CE</sub> = -5V, I <sub>C</sub> = -10mA)		f <sub>T</sub>	—	50	—	MHz
Output Capacitance 输出电容(V <sub>CB</sub> = -10V, I <sub>E</sub> =0, f=1MHz)		C <sub>ob</sub>	—	15	—	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