



安徽富信半导体科技有限公司

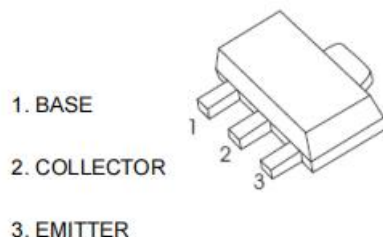
ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

BCX54/BCX55/BCX56

SOT-89 Bipolar Transistor 双极型三极管

■ Features 特点

NPN General Purpose 通用



■ Absolute Maximum Ratings 最大额定值

| Characteristic 特性参数 | Symbol 符号 | BCX54/ -10/-16 | BCX55/ -10/-16 | BCX56/ -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 | $P_C(T_a=25^\circ C)$ | 500 | | | mW |
| Thermal Resistance Junction-Ambient 热阻 | $R_{\theta JA}$ | 250 | | | $^\circ C/W$ |
| Junction and Storage Temperature 结温和储藏温度 | T_J, T_{stg} | -55to+150 $^\circ C$ | | | |

■ Device Marking 产品打标

| $H_{FE}(2)$ | | 63-250 | 63-160(-10) | 100-250(-16) |
|-------------|-------|--------|-------------|--------------|
| Mark | BCX54 | BA | BC | BD |
| | BCX55 | BE | BG | BM |
| | BCX56 | BH | BK | BL |

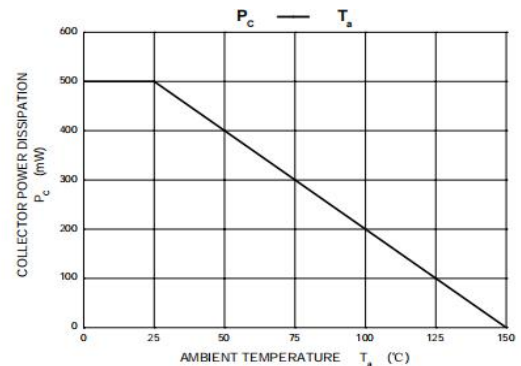
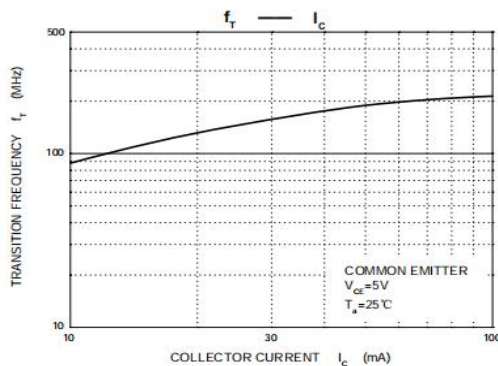
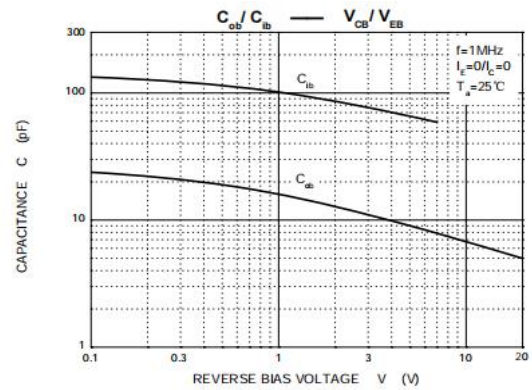
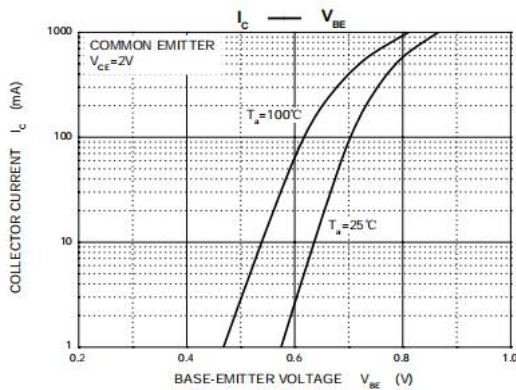
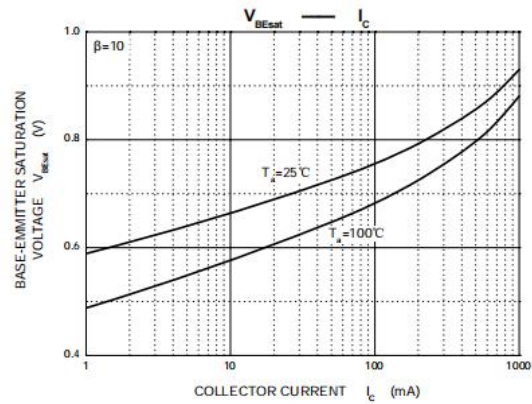
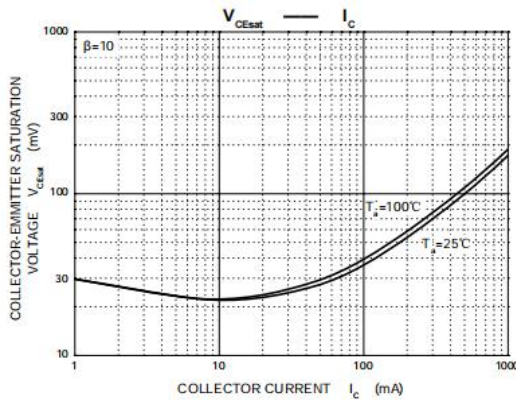
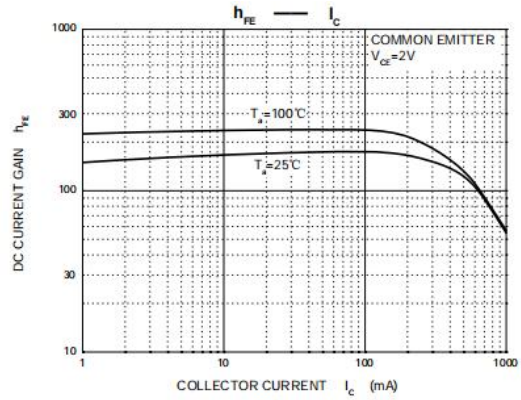
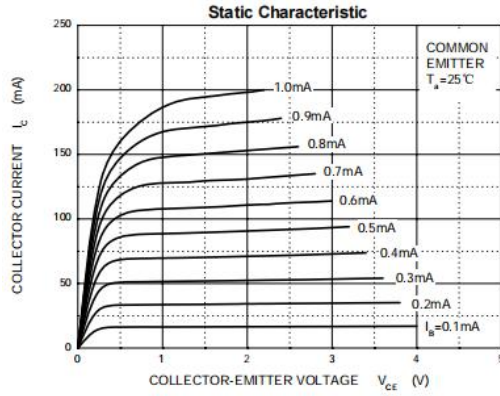


■ Electrical Characteristics 电特性

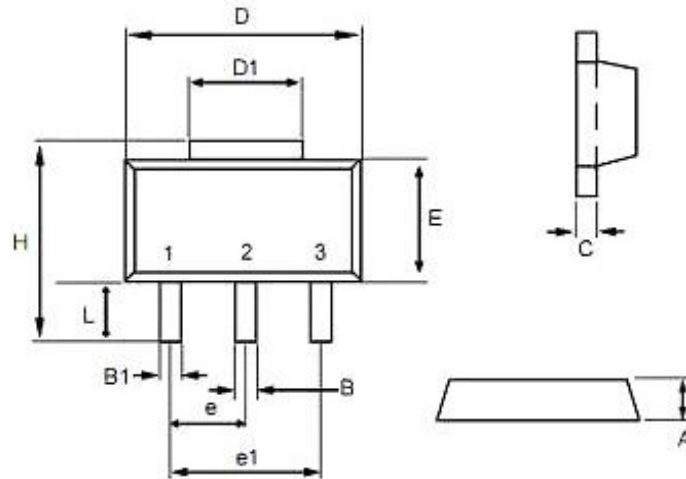
(TA=25°C unless otherwise noted 如无特殊说明, 温度为 25°C)

| 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 _C = 100uA, I _E =0) | BCX54/-10/-16 BCX55/-10/-16 BCX56/-10/-16 | BV _{CBO} | 45 60 100 | — | — | V |
| Collector-Emitter Breakdown Voltage 集电极发射极击穿电压 (I _C = 10mA, I _B =0) | BCX54/-10/-16 BCX55/-10/-16 BCX56/-10/-16 | BV _{CEO} | 45 60 80 | — | — | V |
| Emitter-Base Breakdown Voltage 发射极基极击穿电压(I _E = 100uA, I _C =0) | | BV _{EBO} | 5 | — | — | V |
| Collector-Base Leakage Current 集电极基极漏电流 | BCX54/-10/-16 (V _{CB} = 30V,I _E =0) BCX55/-10/-16 (V _{CB} = 50V,I _E =0) BCX56/-10/-16 (V _{CB} = 80V,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 直流电流增益(V _{CE} = 2V,I _C = 5mA) | | H _{FE} (1) | 40 | — | — | |
| DC Current Gain 直流电流增益 (V _{CE} =2V,I _C =0.15A) | BCX54/BCX55/BCX56 BCX54/BCX55/BCX56-10 BCX54/BCX55/BCX56-16 | H _{FE} (2) | 63 63 100 | — | 250 160 250 | |
| DC Current Gain 直流电流增益(V _{CE} = 2V,I _C = 0.5A) | | H _{FE} (3) | 25 | — | — | |
| Collector-Emitter Saturation Voltage 集电极发射极饱和压降(I _C = 0.5A, I _B = 50mA) | | V _{CE(sat)} | — | — | 0.5 | V |
| Base-Emitter Saturation Voltage 基极发射极饱和压降(I _C = 500mA, I _B = 50mA) | | V _{BE(sat)} | — | — | 1 | V |
| Base-Emitter On Voltage 基极发射极导通电压(V _{CE} = 2V,I _C = 0.5A) | | V _{BE(on)} | — | — | 1 | V |
| Transition Frequency 特征频率(V _{CE} = 5V, I _C = 10mA) | | f _T | — | 130 | — | MHz |
| Output Capacitance 输出电容(V _{CB} = 10V, I _E =0, f=1MHz) | | C _{ob} | — | 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 |