

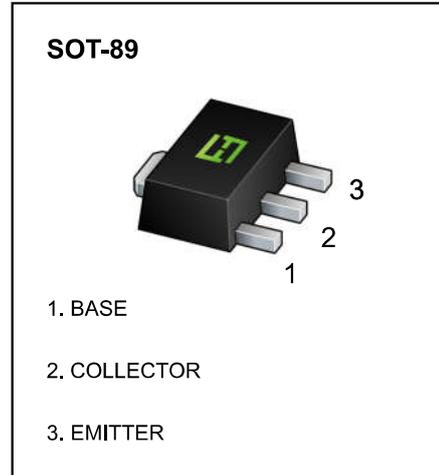
FEATURES

- NPN Complements to BCX54,BCX55,BCX56
- Low Voltage
- High Current

APPLICATIONS

- Medium Power General Purposes
- Driver Stages of Audio Amplifiers

MARKING:BCX51:AA, BCX51-10:AC, BCX51-16:AD
BCX52:AE, BCX52-10:AG, BCX52-16:AM
BCX53:A H, BCX53-10:AK, BCX53-16:AL



MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|-----------------|--|----------|-----------------------------|
| V_{CBO} | Collector-Base Voltage | BCX51 | -45 |
| | | BCX52 | -60 |
| | | BCX53 | -100 |
| V_{CEO} | Collector-Emitter Voltage | BCX51 | -45 |
| | | BCX52 | -60 |
| | | BCX53 | -80 |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current | -1 | A |
| P_C | Collector Power Dissipation | 500 | mW |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient | 250 | $^{\circ}\text{C}/\text{W}$ |
| T_J, T_{stg} | Operation Junction and Storage Temperature Range | -55~+150 | $^{\circ}\text{C}$ |

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

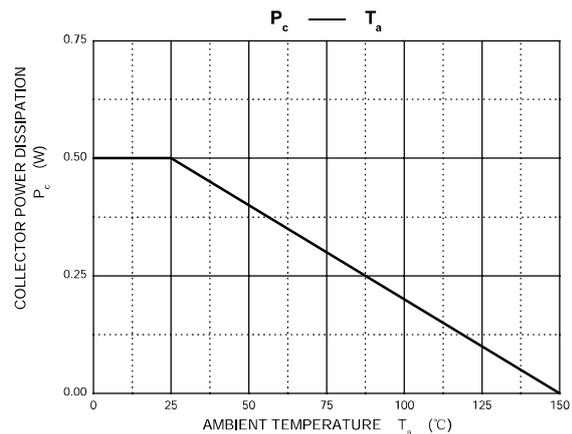
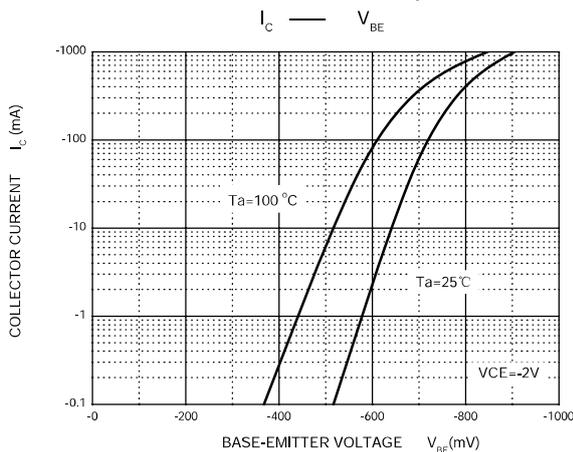
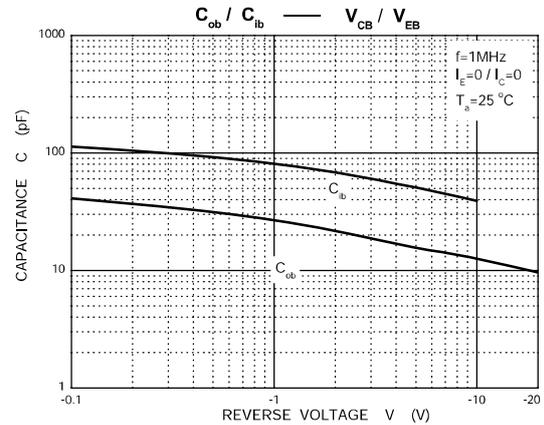
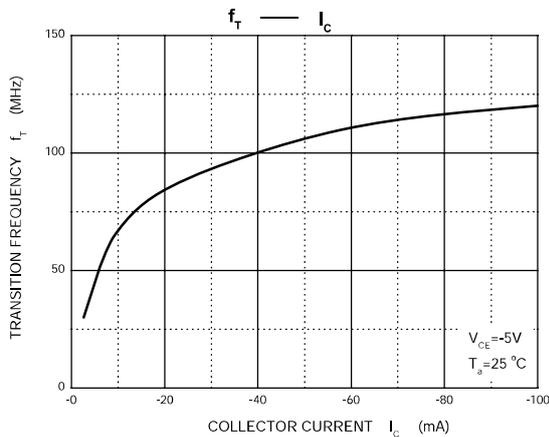
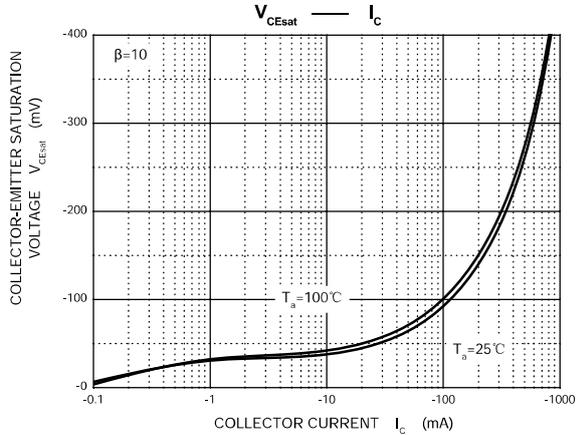
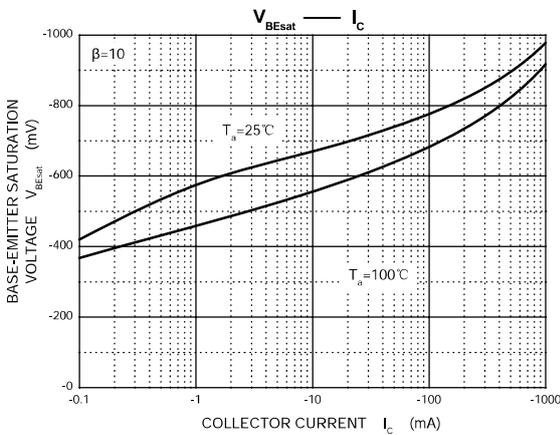
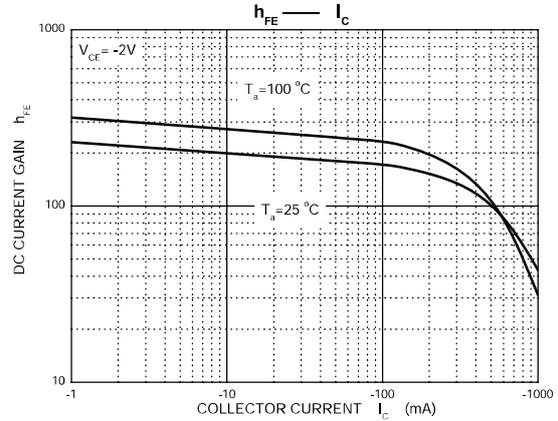
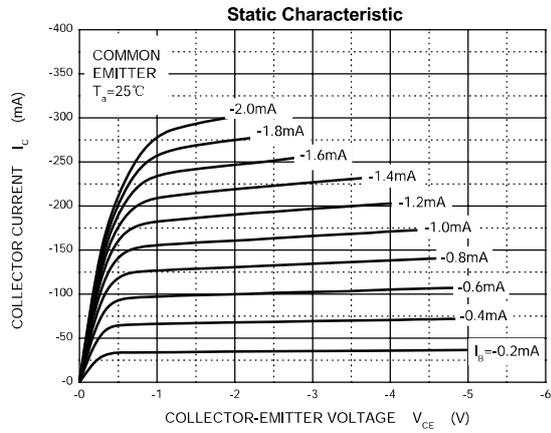
| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|-----------------------|---|-------|------|------|------|
| Collector-base breakdown voltage | V _{(BR)CBO} | I _C =-100μA, I _E =0 | BCX51 | -45 | | V |
| | | | BCX52 | -60 | | |
| | | | BCX53 | -100 | | |
| Collector-emitter breakdown voltage | V _{(BR)CEO*} | I _C =-10mA, I _B =0 | BCX51 | -45 | | V |
| | | | BCX52 | -60 | | |
| | | | BCX53 | -80 | | |
| Emitter-base breakdown voltage | V _{(BR)EBO} | I _E =-100μA, I _C =0 | -5 | | | V |
| Collector cut-off current | I _{CBO} | V _{CB} =-30V, I _E =0 | | | -0.1 | μA |
| Emitter cut-off current | I _{EBO} | V _{EB} =-5V, I _C =0 | | | -0.1 | μA |
| DC current gain | h _{FE(1)*} | V _{CE} =-2V, I _C =-5mA | 63 | | | |
| | h _{FE(2)*} | V _{CE} =-2V, I _C =-150mA | 63 | | 250 | |
| | h _{FE(3)*} | V _{CE} =-2V, I _C =-0.5A | 40 | | | |
| Collector-emitter saturation voltage | V _{CE(sat)*} | I _C =-0.5A, I _B =-50mA | | | -0.5 | V |
| Base -emitter voltage | V _{BE*} | V _{CE} =-2V, I _C =-0.5A | | | -1 | V |
| Transition frequency | f _T | V _{CE} =-5V, I _C =-10mA, f=100MHz | | 50 | | MHz |

* Pulse Test

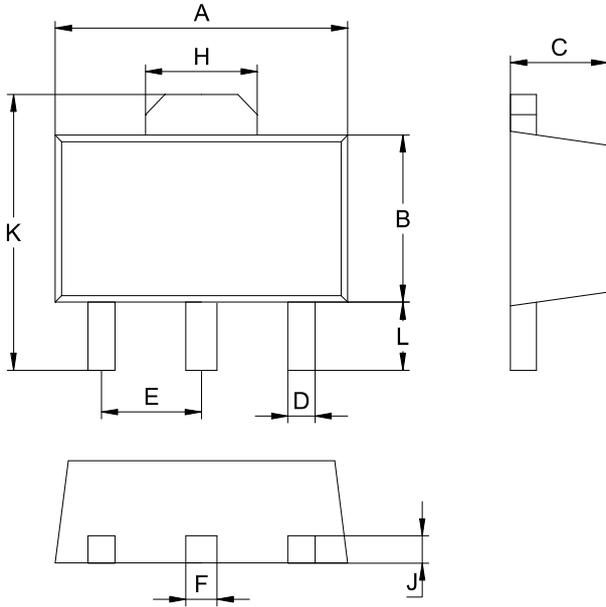
CLASSIFICATION OF h_{FE(2)}

| RANK | BCX51 BCX52 BCX53 | BCX51-10 BCX52-10 BCX53-10 | BCX51-16 BCX52-16 BCX53-16 |
|-------|-------------------------|----------------------------------|----------------------------------|
| RANGE | 63-250 | 63-160 | 100-250 |

Typical Characteristics

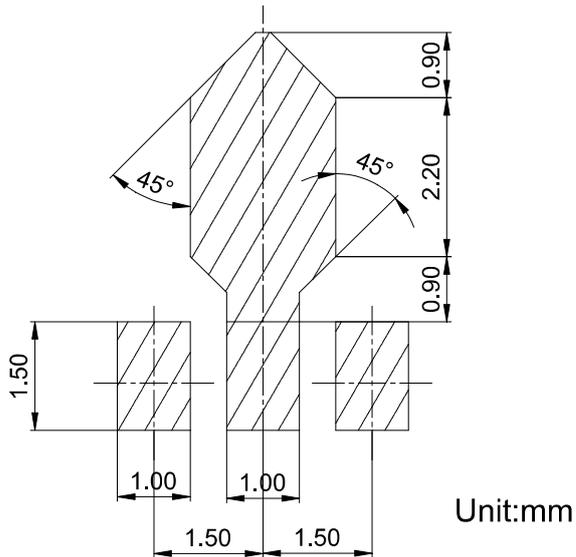


SOT-89 Package Outline Dimensions



| SOT-89 | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 4.30 | 4.70 |
| B | 2.20 | 2.70 |
| C | 1.30 | 1.70 |
| D | 0.30 | 0.60 |
| E | 1.40 | 1.60 |
| F | 0.30 | 0.60 |
| H | 1.40 | 1.80 |
| J | 0.30 | 0.60 |
| L | 0.90 | 1.10 |
| K | 3.75 | 4.35 |
| All Dimensions in mm | | |

SOT-89 Suggested Pad Layout



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bipolar Transistors - BJT category](#):

Click to view products by [FUXINSEMI manufacturer](#):

Other Similar products are found below :

[619691C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [BC557/116](#) [BSW67A](#) [NJVMJD148T4G](#) [NTE123AP-10](#) [NTE153MCP](#) [NTE16](#)
[NTE195A](#) [NTE92](#) [C4460](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [2SC2712S-GR,LF](#) [2SC5488A-TL-H](#)
[2SD2150T100R](#) [SP000011176](#) [2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SC2412KT146S](#) [2SD1816S-TL-E](#) [CPH6501-TL-E](#) [MCH4021-TL-E](#)
[MJE340](#) [US6T6TR](#) [NJL0281DG](#) [732314D](#) [CPH3121-TL-E](#) [CPH6021-TL-H](#) [873787E](#) [IMZ2AT108](#) [UMX21NTR](#) [MCH6102-TL-E](#)
[NJL0302DG](#) [2N3583](#) [30A02MH-TL-E](#) [NSV40301MZ4T1G](#) [NTE13](#) [NTE26](#) [NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#) [STX83003-AP](#)