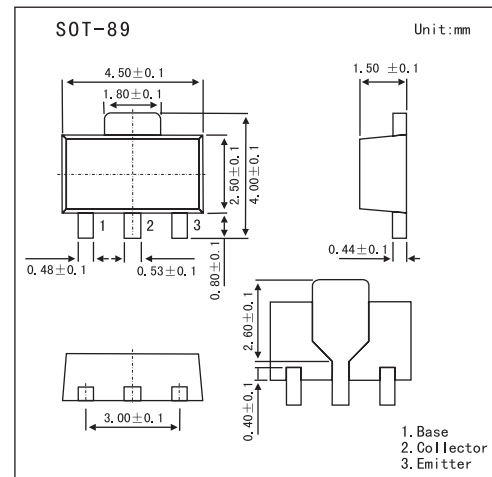


PNP Medium Power Transistors

BCX51,BCX52,BCX53

■ Features

- High current (max. 1 A).
- Low voltage (max. 80 V).

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | | Symbol | Rating | Unit |
|--|-------|---------------|-------------|------------------|
| Collector-base voltage | BCX51 | V_{CB0} | -45 | V |
| | BCX52 | | -60 | V |
| | BCX53 | | -100 | V |
| Collector-emitter voltage | BCX51 | V_{CEO} | -45 | V |
| | BCX52 | | -60 | V |
| | BCX53 | | -80 | V |
| Emitter-base voltage | | V_{EBO} | -5 | V |
| Collector current | | I_C | -1 | A |
| Peak collector current | | I_{CM} | -1.5 | A |
| Peak base current | | I_{BM} | -200 | mA |
| Total power dissipation | | P_{tot} | 1.3 | W |
| Storage temperature | | T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Junction temperature | | T_j | 150 | $^\circ\text{C}$ |
| Operating ambient temperature | | R_{amb} | -65 to +150 | $^\circ\text{C}$ |
| Thermal resistance from junction to ambient | | $R_{th(j-a)}$ | 94 | K/W |
| Thermal resistance from junction to solder point | | $R_{th(j-s)}$ | 14 | K/W |

BCX51,BCX52,BCX53■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|--|----------------------|---|-----|-----|------|------|
| Collector cutoff current | I _{CBO} | V _{CB} = -30 V, I _E = 0 | | | -100 | nA |
| | | V _{CB} = -30 V, I _E = 0; T _j = 125°C | | | -10 | μA |
| Emitter cutoff current | I _{EBO} | V _{EB} = -5 V, I _C = 0 | | | -100 | nA |
| DC current gain | h _{FE} | I _C = -5 mA; V _{CE} = -2 V | 63 | | | |
| | | I _C = -150 mA; V _{CE} = -2 V | 63 | | 250 | |
| | | I _C = -500 mA; V _{CE} = -2 V | 40 | | | |
| DC current gain BCX51-10,BCX52-10,BCX53-10 BCX51-16,BCX52-16,BCX53-16 | h _{FE} | I _C = -150 mA; V _{CE} = -2 V | 63 | | 160 | |
| | | I _C = -150 mA; V _{CE} = -2 V | 100 | | 250 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C = -500 mA; I _B = -50 mA | | | -500 | mV |
| Base to emitter voltage | V _{BE} | I _C = -500 mA; V _{CE} = -2 V | | | -1 | V |
| Transition frequency | f _T | I _C = -10 mA; V _{CE} = -5 V; f = 100 MHz | | 50 | | MHz |

■ h_{FE} Classification

| TYPE | BCX51 | BCX51-10 | BCX51-16 |
|---------|-------|----------|----------|
| Marking | AA | AC | AD |

| TYPE | BCX52 | BCX52-10 | BCX52-16 |
|---------|-------|----------|----------|
| Marking | AE | AG | AM |

| TYPE | BCX53 | BCX53-10 | BCX53-16 |
|---------|-------|----------|----------|
| Marking | AH | AK | AL |