

**FEATURES**

- PNP Complements to BCX51,BCX52,BCX53
- Low Voltage
- High Current

**APPLICATIONS**

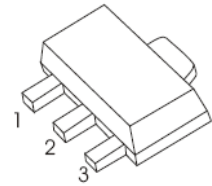
- Driver Stages of Audio Amplifiers

**MARKING:BCX54:BA, BCX54-10:BC, BCX54-16:BD**
**BCX55:BE, BCX55-10:BG, BCX55-16BM**
**BCX56:B H, BCX56-10:BK, BCX56-16:BL**
**MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

| Symbol           | Parameter                                   | Value    | Unit |
|------------------|---|----------|------|
| V <sub>CBO</sub> | Collector-Base Voltage                      | BCX54    | 45   |
|                  |   | BCX55    | 60   |
|                  |   | BCX56    | 100  |
| V <sub>CEO</sub> | Collector-Emitter Voltage                   | BCX54    | 45   |
|                  |   | BCX55    | 60   |
|                  |   | BCX56    | 80   |
| V <sub>EBO</sub> | Emitter-Base Voltage                        | 5        | V    |
| I <sub>C</sub>   | Collector Current                           | 1        | A    |
| P <sub>C</sub>   | Collector Power Dissipation                 | 500      | mW   |
| R <sub>θJA</sub> | Thermal Resistance From Junction To Ambient | 250      | °C/W |
| T <sub>j</sub>   | Junction Temperature                        | 150      | °C   |
| T <sub>stg</sub> | Storage Temperature                         | -55~+150 | °C   |

**SOT-89-3L**

1. BASE
2. COLLECTOR
3. EMITTER



| Parameter                            | Symbol          | Test conditions                 | Min   | Typ | Max | Unit    |
|--------------------------------------|-----------------|---------------------------------|-------|-----|-----|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$   | $I_C=100\mu A, I_E=0$           | BCX54 | 45  |     | V       |
|                                      |                 |                                 | BCX55 | 60  |     |         |
|                                      |                 |                                 | BCX56 | 100 |     |         |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO^*}$ | $I_C=10mA, I_B=0$               | BCX54 | 45  |     | V       |
|                                      |                 |                                 | BCX55 | 60  |     |         |
|                                      |                 |                                 | BCX56 | 80  |     |         |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$   | $I_E=100\mu A, I_C=0$           | 5     |     |     | V       |
| Collector cut-off current            | $I_{CBO}$       | $V_{CB}=30V, I_E=0$             |       |     | 0.1 | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$       | $V_{EB}=5V, I_C=0$              |       |     | 0.1 | $\mu A$ |
| DC current gain                      | $h_{FE(1)^*}$   | $V_{CE}=2V, I_C=5mA$            | 40    |     |     |         |
|                                      | $h_{FE(2)^*}$   | $V_{CE}=2V, I_C=150mA$          | 63    |     | 250 |         |
|                                      | $h_{FE(3)^*}$   | $V_{CE}=2V, I_C=0.5A$           | 25    |     |     |         |
| 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                 | $f_T$           | $V_{CE}=5V, I_C=10mA, f=100MHz$ |       | 130 |     | MHz     |

**CLASSIFICATION OF  $h_{FE(2)}$** 

|       |         |          |          |
|-------|---------|----------|----------|
| RANK  | BCX54   | BCX54-10 | BCX54-16 |
|       | BCX55   | BCX55-10 | BCX55-16 |
|       | BCX56   | BCX56-10 | BCX56-16 |
| RANGE | 63- 250 | 63- 160  | 100- 250 |

