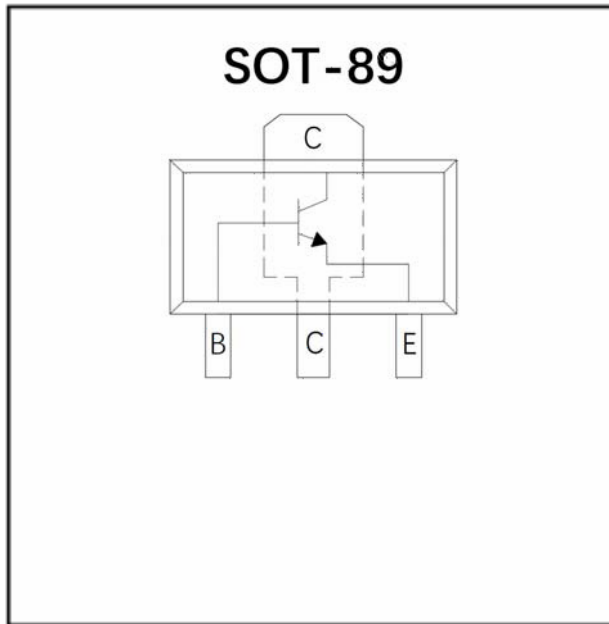


## NPN General Purpose Amplifier



### Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- Low collector-emitter saturation voltage

### Mechanical Data

- **Package:** SOT-89  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:**

|          |    |
|----------|----|
| BCX55    | BE |
| BCX55-16 | BM |

### ■Maximum Ratings (Ta=25 unless otherwise noted)

| Item                                        | Symbol          | Unit | Conditions            | Value       |
|---------------------------------------------|-----------------|------|-----------------------|-------------|
| Minimum Collector-Emitter Voltage           | $V_{CE0}$       | V    | $I_C=10mA, I_B=0$     | 60          |
| Minimum Collector-Base Voltage              | $V_{CBO}$       | V    | $I_C=100\mu A, I_E=0$ | 60          |
| Minimum Emitter-Base Voltage                | $V_{EBO}$       | V    | $I_E=100\mu A, I_C=0$ | 5           |
| Collector Current                           | $I_C$           | A    |                       | 1           |
| Collector Power Dissipation                 | $P_C$           | mW   |                       | 500         |
| Thermal Resistance From Junction To Ambient | $R_{\theta JA}$ | /W   |                       | 250         |
| Operation Junction Temperature              | $T_j$           |      |                       | -55 to +150 |
| Storage Temperature                         | $T_{stg}$       |      |                       | -55 to +150 |



## BCX55

### ■ Electrical Characteristics (Ta=25 unless otherwise noted)

| Item                                 | Symbol        | Unit | Conditions                      | Min | TYP | Max |
|--------------------------------------|---------------|------|---------------------------------|-----|-----|-----|
| Collector-Emitter Voltage            | $V_{CEO}$     | V    | $I_C=10mA, I_B=0$               | 60  |     |     |
| Collector-Base Voltage               | $V_{CBO}$     | V    | $I_C=100\mu A, I_E=0$           | 60  |     |     |
| Emitter-Base Voltage                 | $V_{EBO}$     | V    | $I_E=100\mu A, I_C=0$           | 5   |     |     |
| Collector-Base cut-off current       | $I_{CBO}$     | nA   | $V_{CB}=30V$                    |     |     | 100 |
| Emitter-Base cut-off current         | $I_{EBO}$     | nA   | $V_{EB}=5V$                     |     |     | 100 |
| DC Current Gain                      | $h_{FE1}$     |      | $V_{CE}=2V, I_C=150mA$          | 63  |     | 250 |
|                                      | $h_{FE2}$     |      | $V_{CE}=2V, I_C=5mA$            | 40  |     |     |
|                                      | $h_{FE3}$     |      | $V_{CE}=2V, I_C=500mA$          | 23  |     |     |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | V    | $I_C=500mA, I_B=50mA$           |     |     | 0.5 |
| Base-Emitter Voltage                 | $V_{BE}$      | V    | $V_{CE}=2V, I_C=500mA$          |     |     | 1   |
| Transition Frequency                 | $f_T$         | MHz  | $I_C=10mA, V_{CE}=5V, f=100MHz$ | 130 |     |     |

### ■ Classification of $h_{FE}$

| Rank  | BXC55  | BCX55-16 |
|-------|--------|----------|
| Range | 63-250 | 100-250  |

### ■ Ordering Information (Example)

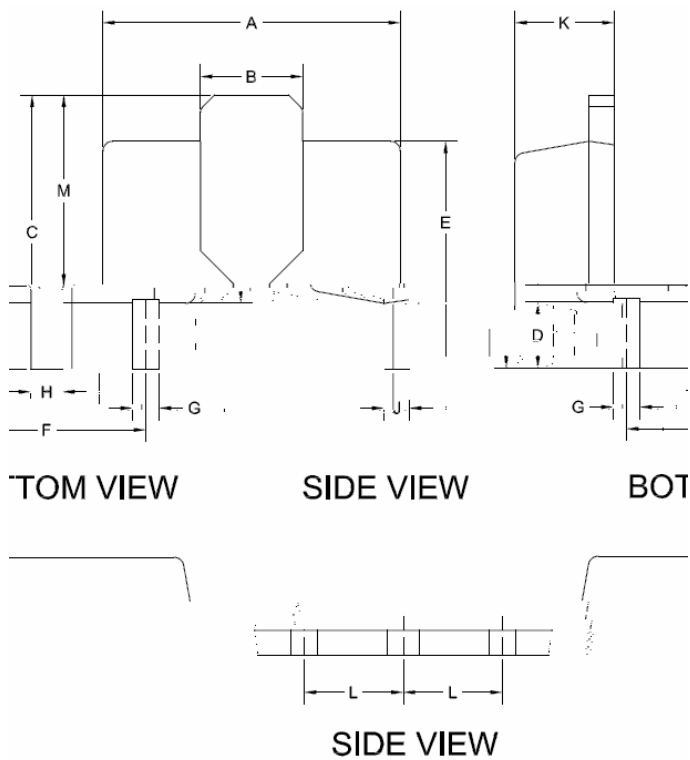
| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) |
|---------------|--------------|----------------|
|---------------|--------------|----------------|

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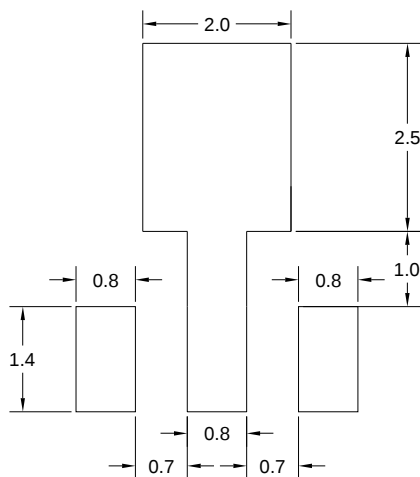
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■SOT-89 Package Outline Dimensions



■SOT-89 Suggested Pad Layout



UNIT:MM



### Disclaimer

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