

## Features

- NPN Complements to BCX55
- Low Voltage
- High Current



SOT-89-3L

## Absolute Maximum Ratings( $T_A=25^{\circ}\text{C}$ )

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

## Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ unless otherwise specified)

| Symbol        | Parameter                            | Test conditions                                        | Min | Typ | Max  | Unit          |
|---------------|--------------------------------------|--------------------------------------------------------|-----|-----|------|---------------|
| $V_{(BR)CBO}$ | Collector-base breakdown voltage     | $I_C=-100\mu\text{A}, I_E=0$                           | -60 |     |      | V             |
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage  | $I_C=-10\text{mA}, I_B=0$                              | -60 |     |      | V             |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage       | $I_E=-100\mu\text{A}, I_C=0$                           | -5  |     |      | V             |
| $I_{CBO}$     | Collector cut-off current            | $V_{CB}=-30\text{V}, I_E=0$                            |     |     | -0.1 | $\mu\text{A}$ |
| $I_{EBO}$     | Emitter cut-off current              | $V_{EB}=-5\text{V}, I_C=0$                             |     |     | -0.1 | $\mu\text{A}$ |
| $h_{FE(1)}$   | DC current gain                      | $V_{CE}=-2\text{V}, I_C=-5\text{mA}$                   | 63  |     |      |               |
| $h_{FE(2)}$   |                                      | $V_{CE}=-2\text{V}, I_C=-150\text{mA}$                 | 63  |     | 250  |               |
| $h_{FE(3)}$   |                                      | $V_{CE}=-2\text{V}, I_C=-0.5\text{A}$                  | 40  |     |      |               |
| $V_{CE(sat)}$ | Collector-emitter saturation voltage | $I_C=-0.5\text{A}, I_B=-50\text{mA}$                   |     |     | -0.5 | V             |
| $V_{BE}$      | Base -emitter voltage                | $V_{CE}=-2\text{V}, I_C=-0.5\text{A}$                  |     |     | -1   | V             |
| $f_T$         | Transition frequency                 | $V_{CE}=-5\text{V}, I_C=-10\text{mA}, f=100\text{MHz}$ |     | 50  |      | MHz           |

## Ordering information

| Product ID | Pack      | Naming rule                                                                                                                                                                             | Marking | $h_{FE(1)}$ | Qty(PCS) |
|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|----------|
| BCX52-16   | SOT-89-3L | <div style="border: 1px solid black; padding: 5px; display: inline-block;"> BCX52-16 </div><br><div style="text-align: center; font-size: small;"> ↓<br/> 产品名称<br/> product name </div> | AM      | 100-250     | 1000     |

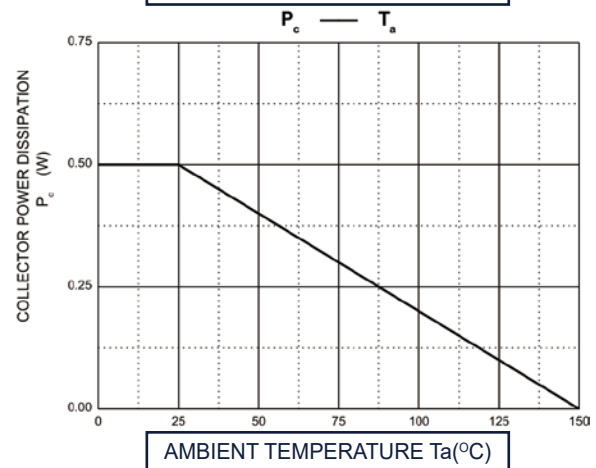
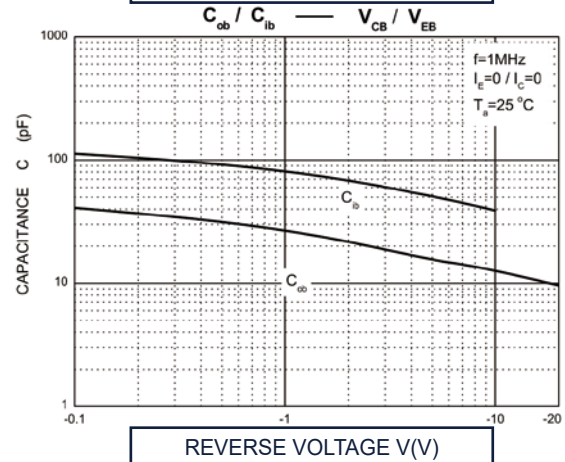
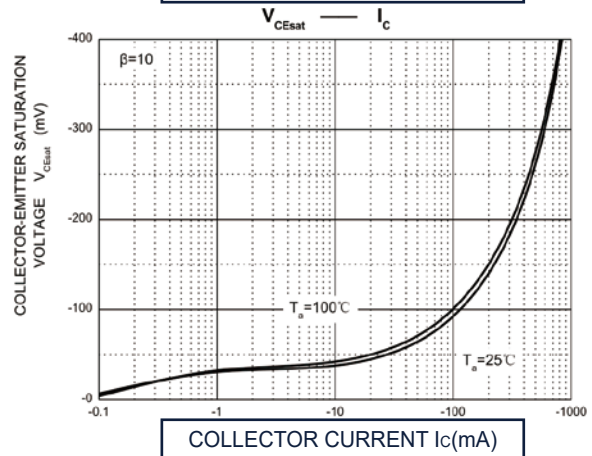
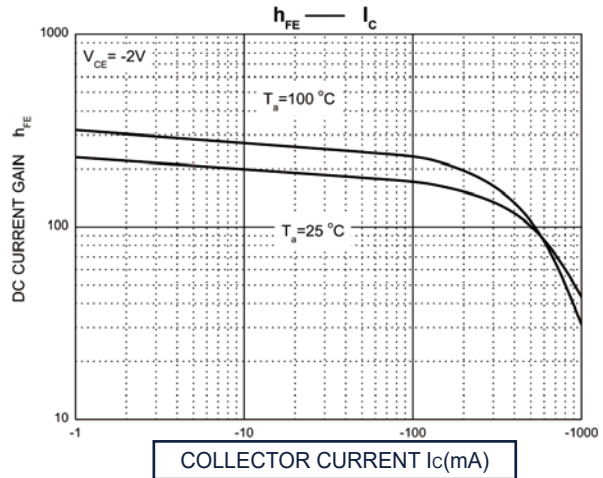
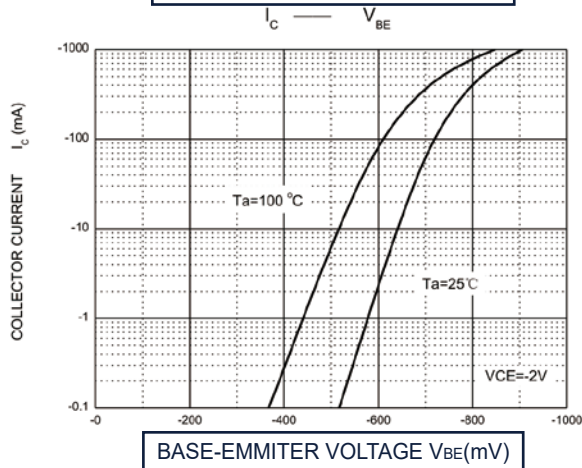
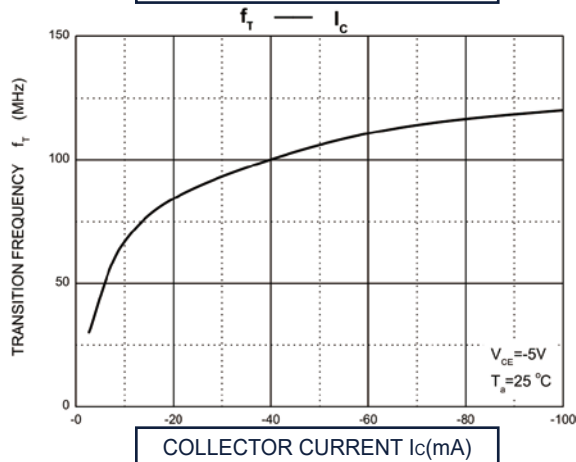
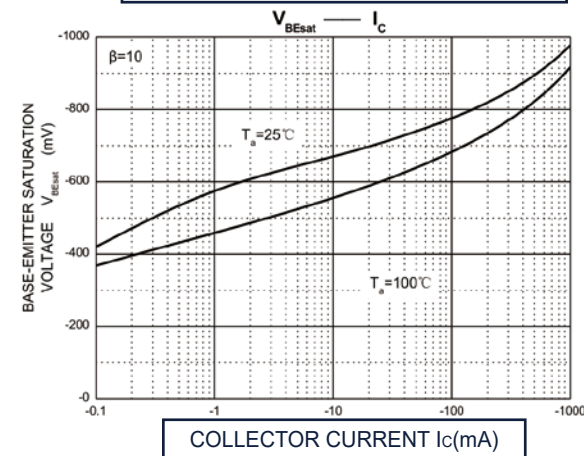
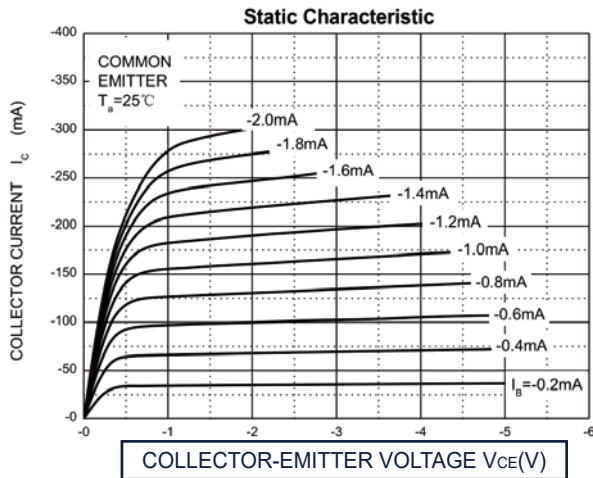


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## TL-BCX52-16

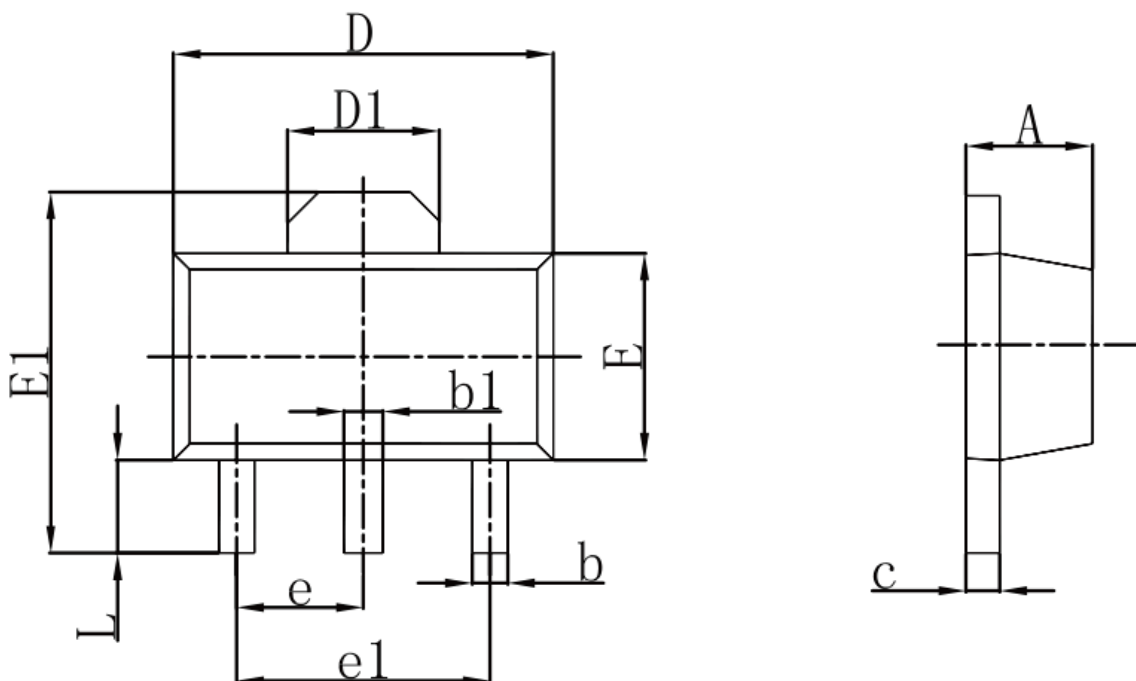
SOT-89-3L Plastic-Encapsulate Transistors (PNP)

## Typical Characteristics





## SOT-89-3L Package Outline Dimensions



| Symbol | Dimensions in Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 1.400                     | 1.600 | 0.055                | 0.063 |
| b      | 0.320                     | 0.520 | 0.013                | 0.020 |
| b1     | 0.400                     | 0.580 | 0.016                | 0.023 |
| c      | 0.350                     | 0.440 | 0.014                | 0.017 |
| D      | 4.400                     | 4.600 | 0.173                | 0.181 |
| D1     | 1.550 REF.                |       | 0.061 REF.           |       |
| E      | 2.300                     | 2.600 | 0.091                | 0.102 |
| E1     | 3.940                     | 4.250 | 0.155                | 0.167 |
| e      | 1.500 TYP.                |       | 0.060 TYP.           |       |
| e1     | 3.000 TYP.                |       | 0.118 TYP.           |       |
| L      | 0.900                     | 1.200 | 0.035                | 0.047 |