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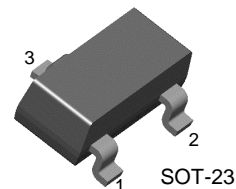
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# BCX71G

BCX71G

## General Purpose Transistor



1. Base 2. Emitter 3. Collector

## PNP Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

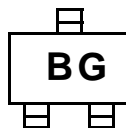
| Symbol    | Parameter                   | Value | Units            |
|-----------|-----------------------------|-------|------------------|
| $V_{CBO}$ | Collector-Base Voltage      | -45   | V                |
| $V_{CEO}$ | Collector-Emitter Voltage   | -45   | V                |
| $V_{EBO}$ | Emitter-Base Voltage        | -5.0  | V                |
| $I_C$     | Collector Current           | -100  | mA               |
| $P_C$     | Collector Power Dissipation | 350   | mW               |
| $T_{STG}$ | Storage Temperature         | 150   | $^\circ\text{C}$ |

• Refer to KST5086 for graphs

### Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

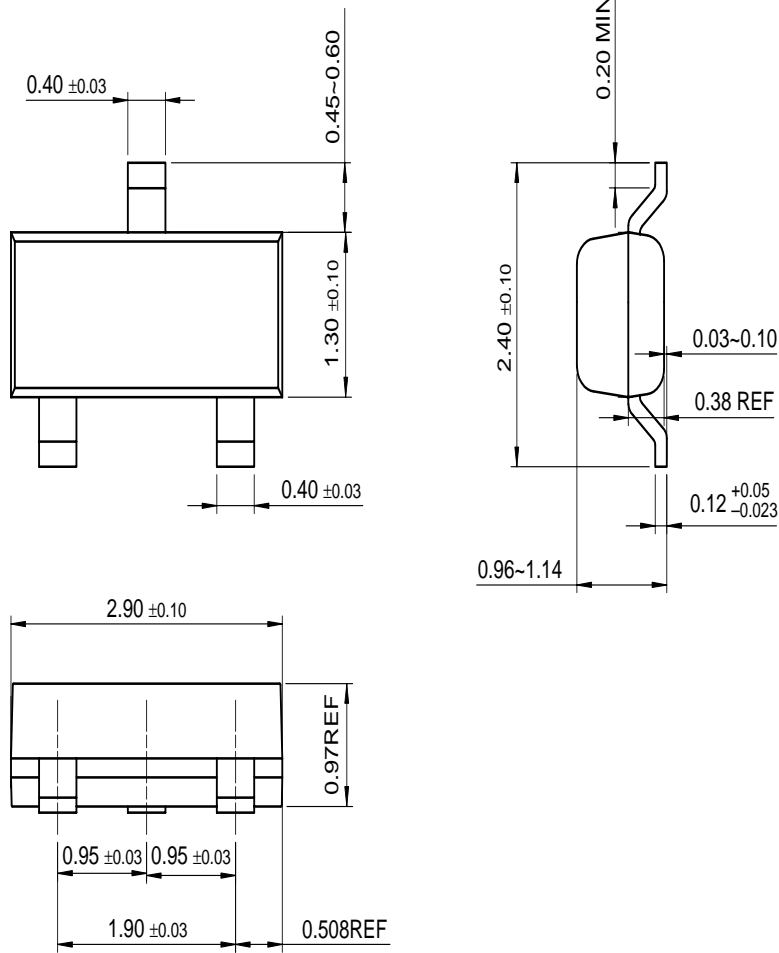
| Symbol               | Parameter                            | Test Condition   | Min.          | Max.           | Units |
|----------------------|--------------------------------------|--|---------------|----------------|-------|
| $BV_{CEO}$           | Collector-Emitter Breakdown Voltage  | $I_C = -2\text{mA}, I_B = 0$   | -45           |                | V     |
| $BV_{EBO}$           | Emitter-Base Breakdown Voltage       | $I_E = -1\mu\text{A}, I_C = 0$   | -5            |                | V     |
| $I_{CES}$            | Collector Cut-off Current            | $V_{CE} = -32\text{V}, V_{BE} = 0$   |               | -20            | nA    |
| $h_{FE}$             | DC Current Gain                      | $V_{CE} = -5\text{V}, I_C = -2\text{mA}$<br>$V_{CE} = -1\text{V}, I_C = -50\mu\text{A}$  | 120<br>60     | 220            |       |
| $V_{CE}(\text{sat})$ | Collector-Emitter Saturation Voltage | $I_C = -10\text{mA}, I_B = -0.25\text{mA}$<br>$I_C = -50\text{mA}, I_B = -1.25\text{mA}$ |               | -0.25<br>-0.55 | V     |
| $V_{BE}(\text{sat})$ | Base-Emitter Saturation Voltage      | $I_C = -10\text{mA}, I_B = -0.25\text{mA}$<br>$I_C = -50\text{mA}, I_B = -1.25\text{mA}$ | -0.6<br>-0.68 | -0.85<br>-1.05 | V     |
| $V_{BE}(\text{on})$  | Base-Emitter On Voltage              | $V_{CE} = -5\text{V}, I_C = -2\text{mA}$   | -0.6          | -0.75          | V     |
| $C_{ob}$             | Output Capacitance                   | $V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$   |               |                | pF    |
| NF                   | Noise Figure                         | $I_C = 0.2\text{mA}, V_{CE} = 5\text{V}$<br>$f = 1\text{KHz}, R_S = 2\text{K}\Omega$     |               | 6              | dB    |
| $t_{ON}$             | Turn On Time                         | $I_C = -10\text{mA}, I_{B1} = -1\text{mA}$   |               | 150            | ns    |
| $t_{OFF}$            | Turn Off Time                        | $I_{B2} = -1\text{mA}, V_{BB} = 3.6\text{V}$<br>$R_L = 990\Omega$                        |               | 800            | ns    |

Marking



# Package Dimensions

## SOT-23



Dimensions in Millimeters

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