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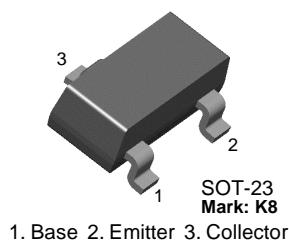
sales@integrated-circuit.com



BCV72

NPN General Purpose Amplifier

- This device is designed for general purpose applications at collector currents to 300mA.
- Sourced from process 10.



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

| Symbol | Parameter | Value | Units |
|----------------|--|------------|------------------|
| V_{CEO} | Collector-Emitter Voltage | 60 | V |
| V_{CBO} | Collector-Base Voltage | 80 | V |
| V_{EBO} | Emitter-Base Voltage | 5.0 | V |
| I_C | Collector current (DC) | 500 | mA |
| T_J, T_{stg} | Operating and Storage Junction Temperature Range | -55 ~ +150 | $^\circ\text{C}$ |

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:

- These ratings are based on a maximum junction temperature of 150 degrees C.
- These are state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

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

| Symbol | Parameter | Test Condition | Min. | Max. | Units |
|----------------------------|--------------------------------------|---|------|-----------|---------------------|
| Off Characteristics | | | | | |
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage | $I_C = 10\mu\text{A}, I_E = 0$ | 80 | | V |
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage | $I_C = 2\text{mA}, I_B = 0$ | 60 | | V |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage | $I_E = 10\mu\text{A}, I_C = 0$ | 5.0 | | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB} = 20\text{V}, I_E = 0$ $V_{CB} = 20\text{V}, I_E = 0, T_a = 100^\circ\text{C}$ | | 100 10 | nA μA |
| On Characteristics | | | | | |
| h_{FE} | DC Current Gain | $I_C = 2.0\text{mA}, V_{CE} = 5.0\text{V}$ | 200 | 450 | |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = 10\text{mA}, I_B = 0.5\text{mA}$ | | 0.25 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C = 2.0\text{mA}, V_{CE} = 5.0\text{V}$ | 0.55 | 0.7 | V |

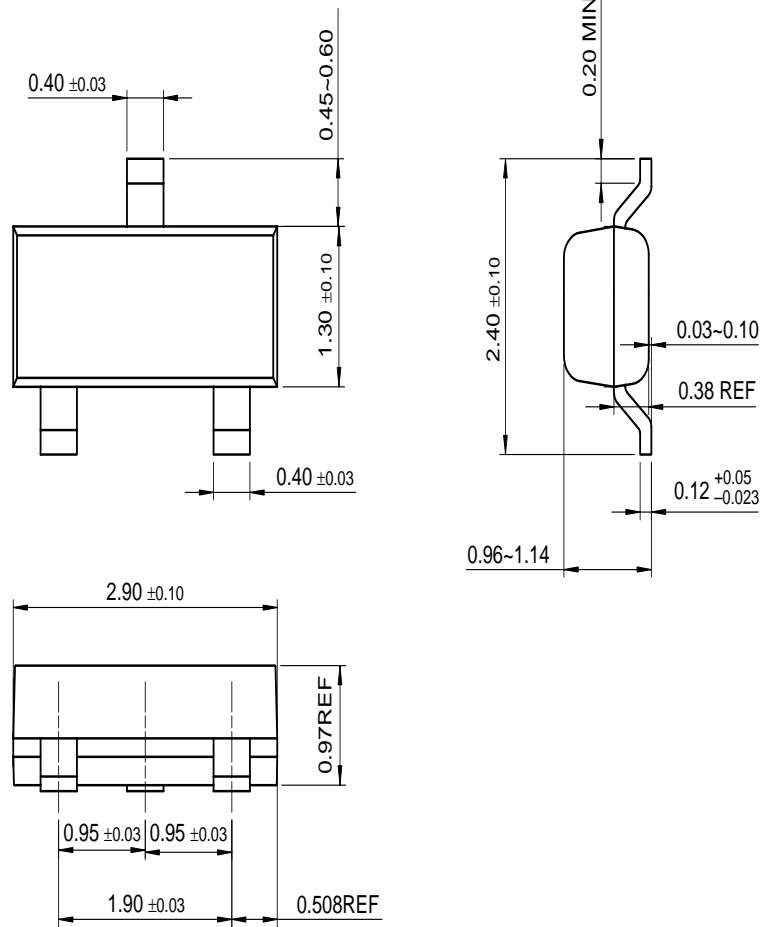
Thermal Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Max. | Units |
|-----------------|---|------------|----------------------------|
| P_D | Total Device Dissipation Derate above 25°C | 350 2.8 | mW mW/ $^\circ\text{C}$ |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 357 | $^\circ\text{C}/\text{W}$ |

Device mounted on FR-4PCB 40mm x 40mm x 1.5mm

Package Dimensions

SOT-23



Dimensions in Millimeters

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