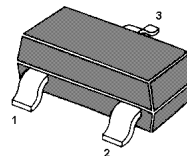


BCW30 PNP Silicon Epitaxial Planar Transistor

general purpose switching and amplification



1.Base 2.Emitter 3.Collector
SOT-23 Plastic Package

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

| Parameter | Symbol | Value | Unit |
|---------------------------|------------|---------------|------------------|
| Collector Base Voltage | $-V_{CBO}$ | 32 | V |
| Collector Emitter Voltage | $-V_{CEO}$ | 32 | V |
| Emitter Base Voltage | $-V_{EBO}$ | 5 | V |
| Collector Current | $-I_C$ | 100 | mA |
| Peak Collector Current | $-I_{CM}$ | 200 | mA |
| Power Dissipation | P_{tot} | 200 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_s | - 55 to + 150 | $^\circ\text{C}$ |

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

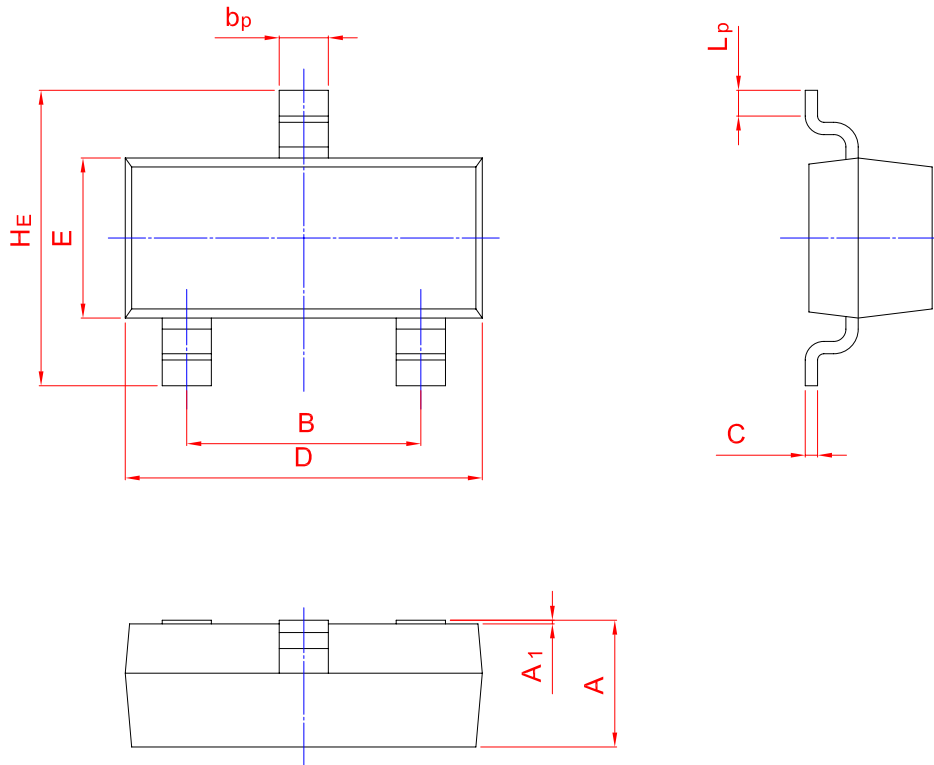
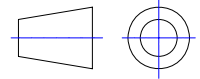
| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|---|----------------|------|------|------|------|
| DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$ | h_{FE} | 215 | - | 500 | - |
| Collector Cutoff Current at $-V_{CB} = 30\text{ V}$ | $-I_{CBO}$ | - | - | 100 | nA |
| Emitter Cutoff Current at $-V_{EB} = 5\text{ V}$ | $-I_{EBO}$ | - | - | 100 | nA |
| Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$ | $-V_{(BR)CBO}$ | 32 | - | - | V |
| Collector Emitter Breakdown Voltage at $-I_C = 1\text{ mA}$ | $-V_{(BR)CEO}$ | 32 | - | - | V |
| Emitter Base Breakdown Voltage at $-I_E = 10\text{ }\mu\text{A}$ | $-V_{(BR)EBO}$ | 5 | - | - | V |
| Collector Emitter Saturation Voltage at $-I_C = 10\text{ mA}$, $-I_B = 0.5\text{ mA}$ | $-V_{CE(sat)}$ | - | - | 0.3 | V |
| Base Emitter Voltage at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$ | $-V_{BE}$ | 0.6 | - | 0.75 | V |
| Transition Frequency at $-V_{CE} = 5\text{ V}$, $I_E = 10\text{ mA}$, $f = 100\text{ MHz}$ | f_T | 100 | - | - | MHz |
| Collector Base Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$ | C_{CBO} | - | 4.5 | - | pF |



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



| UNIT | A | B | bp | C | D | E | Hε | A1 | Lp |
|------|------|------|------|------|------|------|------|-------|------|
| mm | 1.40 | 2.04 | 0.50 | 0.19 | 3.10 | 1.65 | 3.00 | 0.100 | 0.50 |
| | 0.95 | 1.78 | 0.35 | 0.08 | 2.70 | 1.20 | 2.20 | 0.013 | 0.20 |