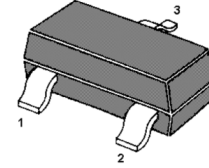


NPN Silicon Epitaxial Planar Transistor

For switching and amplifier applications. Especially suitable for AF-driver stages and low power output stages.



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_{CB0} | 40 | V |
| Collector Emitter Voltage | V_{CEO} | 25 | V |
| Emitter Base Voltage | V_{EBO} | 6 | V |
| Collector Current | I_C | 1 | A |
| Power Dissipation | P_{tot} | 350 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55 to + 150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Min. | Max. | Unit |
|---|---------------|------|------|------|
| DC Current Gain at $V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$ | h_{FE} | 200 | 400 | - |
| at $V_{CE} = 1\text{ V}$, $I_C = 800\text{ mA}$ | | | | - |
| Collector Base Cutoff Current at $V_{CB} = 35\text{ V}$ | I_{CB0} | - | 100 | nA |
| Emitter Base Cutoff Current at $V_{EB} = 6\text{ V}$ | I_{EBO} | - | 100 | nA |
| Collector Base Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$ | $V_{(BR)CBO}$ | 40 | - | V |
| Collector Emitter Breakdown Voltage at $I_C = 2\text{ mA}$ | $V_{(BR)CEO}$ | 25 | - | V |
| Emitter Base Breakdown Voltage at $I_E = 100\text{ }\mu\text{A}$ | $V_{(BR)EBO}$ | 6 | - | V |
| Collector Emitter Saturation Voltage at $I_C = 800\text{ mA}$, $I_B = 80\text{ mA}$ | $V_{CE(sat)}$ | - | 0.5 | V |
| Base Emitter Saturation Voltage at $I_C = 800\text{ mA}$, $I_B = 80\text{ mA}$ | $V_{BE(sat)}$ | - | 1.2 | V |
| Base Emitter Voltage at $V_{CE} = 1\text{ V}$, $I_C = 10\text{ mA}$ | $V_{BE(on)}$ | - | 1 | V |
| Gain Bandwidth Product at $V_{CE} = 10\text{ V}$, $I_C = 50\text{ mA}$ | f_T | 120 | - | MHz |

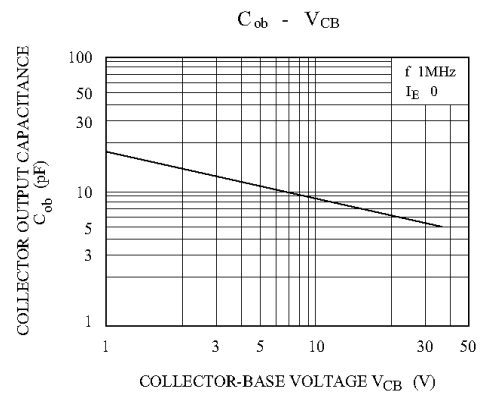
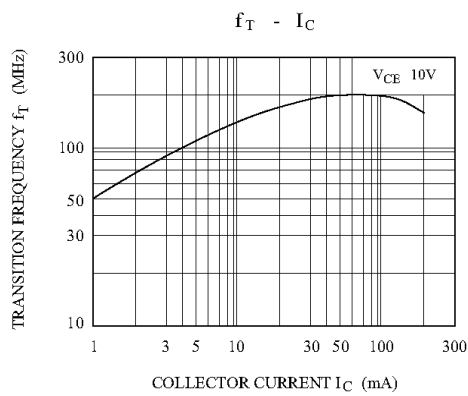
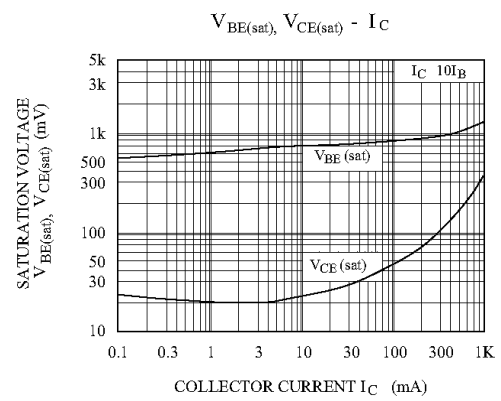
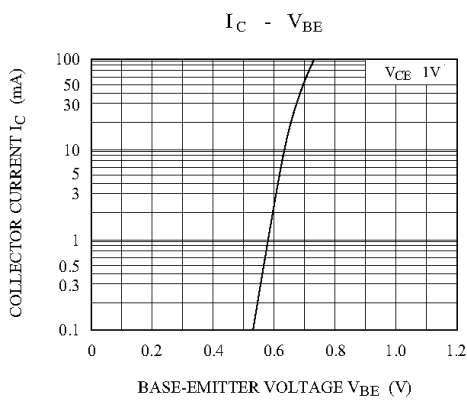
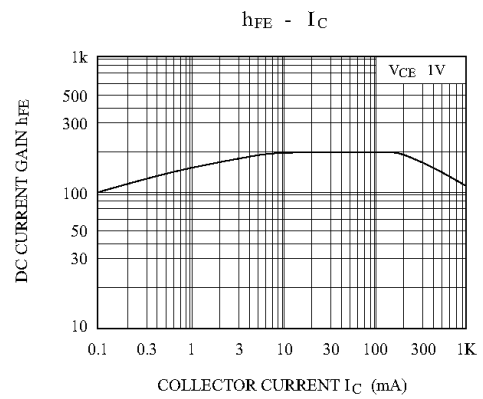
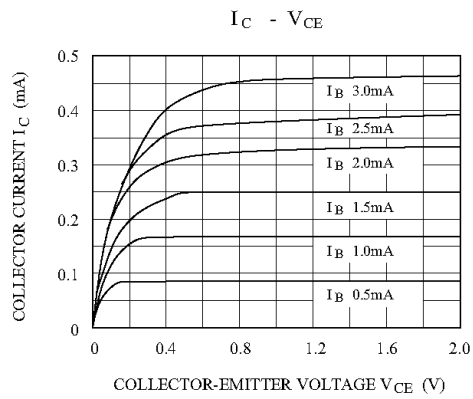
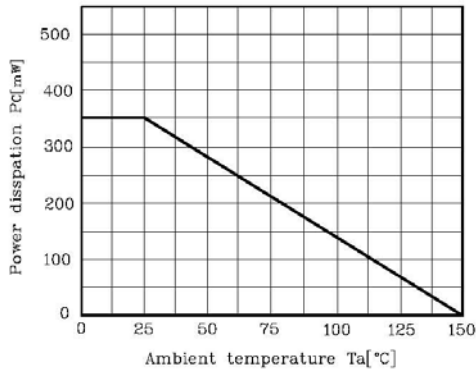


Fig. 1 $P_C T_a$



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