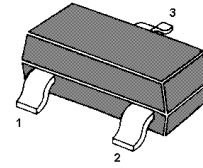


PNP Silicon Epitaxial Planar Transistor

Low frequency transistor

The transistor is subdivided into two groups Q and R according to its DC current gain.


 1.BASE 2.EMITTER 3.COLLECTOR
 SOT-23 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

| Parameter | Symbol | Value | Unit |
|---------------------------|-------------------|-------------|------|
| Collector Base Voltage | -V _{CBO} | 40 | V |
| Collector Emitter Voltage | -V _{CEO} | 32 | V |
| Emitter Base Voltage | -V _{EBO} | 5 | V |
| Collector Current | -I _C | 800 | mA |
| Power Dissipation | P _{tot} | 200 | mW |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature Range | T _{Stg} | -55 to +150 | °C |

Characteristics at T_a = 25 °C

| Parameter | Symbol | Min. | Max. | Unit | |
|--|-----------------------|-----------------|------|------|---|
| DC Current Gain at -V _{CE} = 3 V, -I _C = 100 mA | Q | h _{FE} | 120 | 270 | - |
| | R | h _{FE} | 180 | 390 | - |
| Collector Cutoff Current at -V _{CB} = 20 V | -I _{CBO} | - | 0.5 | μA | |
| Emitter Cutoff Current at -V _{EB} = 4 V | -I _{EBO} | - | 0.5 | μA | |
| Collector Base Breakdown Voltage at -I _C = 50 μA | -V _{(BR)CBO} | 40 | - | V | |
| Collector Emitter Breakdown Voltage at -I _C = 1 mA | -V _{(BR)CEO} | 32 | - | V | |
| Emitter Base Breakdown Voltage at -I _E = 50 μA | -V _{(BR)EBO} | 5 | - | V | |
| Collector Saturation Voltage at -I _C = 500 mA, -I _B = 50 mA | -V _{CE(sat)} | - | 0.5 | V | |
| Output Capacitance at -V _{CB} = 10 V, I _E = 0 A, f = 1 MHz | C _{ob} | - | 30 | pF | |
| Transition Frequency at -V _{CE} = 5 V, I _E = 50 mA, f = 100 MHz | f _T | 50 | - | MHz | |

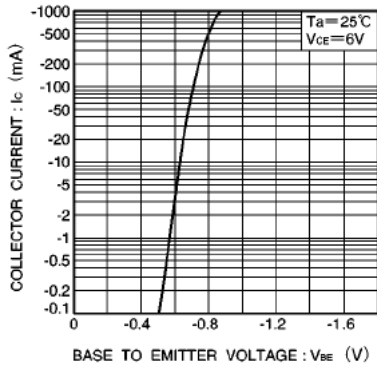


Fig.1 Grounded emitter propagation characteristics

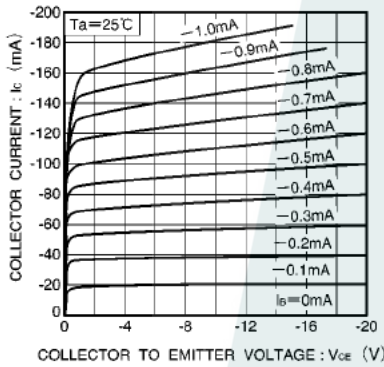


Fig.2 Grounded emitter output characteristics (I)

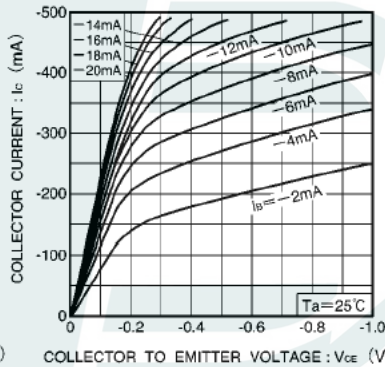


Fig.3 Grounded emitter output characteristics (II)

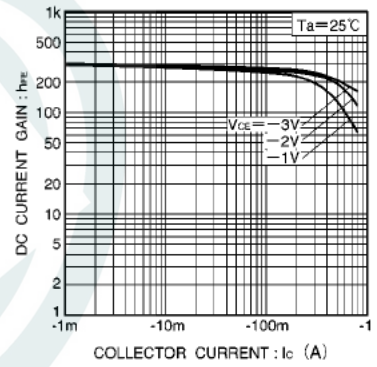


Fig.4 DC current gain vs. collector current

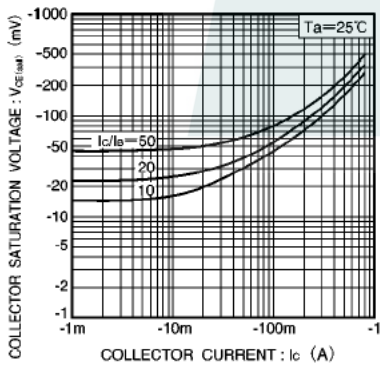


Fig.5 Collector-emitter saturation voltage vs. collector current

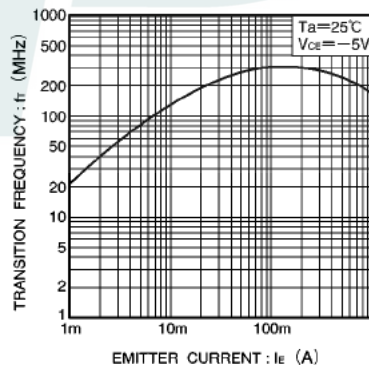


Fig.6 Gain bandwidth product vs. emitter current

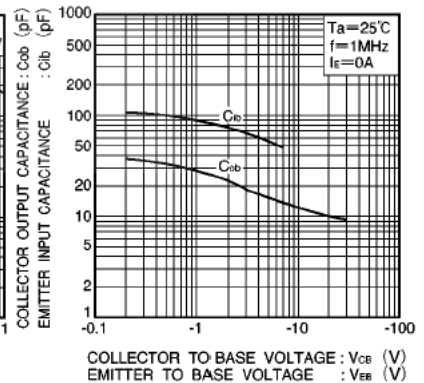


Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage