

Silicon PNP Power Transistors

2SB1317

DESCRIPTION

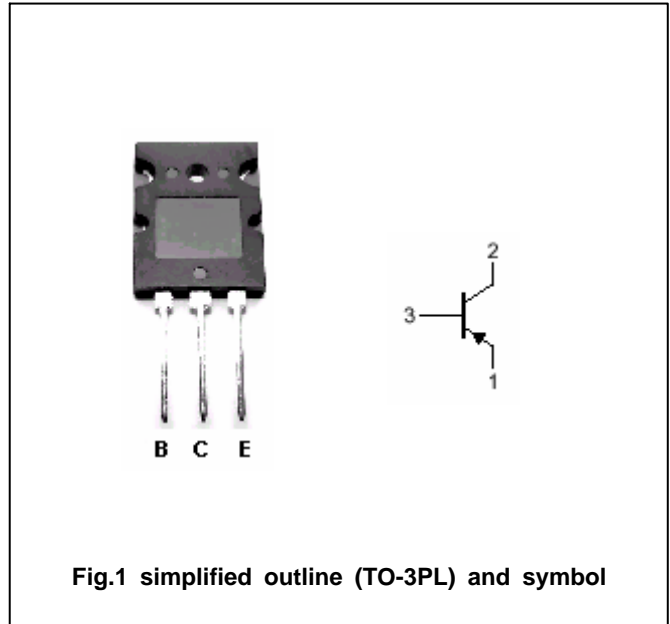
- With TO-3PL package
- Complement to type 2SD1975
- Wide area of safe operation
- High transition frequency f_T
- Optimum for the output stage of a Hi-Fi audio amplifier

APPLICATIONS

- For high power amplification

PINNING

| PIN | DESCRIPTION |
|-----|--------------------------------------|
| 1 | Emitter |
| 2 | Collector;connected to mounting base |
| 3 | Base |



Absolute maximum ratings($T_a=25$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | -180 | V |
| V_{CEO} | Collector-emitter voltage | Open base | -180 | V |
| V_{EBO} | Emitter-base voltage | Open collector | -5 | V |
| I_C | Collector current | | -15 | A |
| I_{CM} | Collector current-peak | | -25 | A |
| P_C | Collector power dissipation | $T_a=25$ | 3.5 | W |
| | | $T_C=25$ | 150 | |
| T_j | Junction temperature | | 150 | |
| T_{stg} | Storage temperature | | -55~150 | |

Silicon PNP Power Transistors

2SB1317

CHARACTERISTICS

T_j=25 unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|--------------------|--------------------------------------|--|-----|------|------|------|
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-10A ; I _B =-1A | | | -2.5 | V |
| V _{BE} | Base-emitter on voltage | I _C =-8A ; V _{CE} =-5V | | | -1.8 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-180V; I _E =0 | | | -50 | μ A |
| I _{EBO} | Emitter cut-off current | V _{EB} =-3V; I _C =0 | | | -50 | μ A |
| h _{FE-1} | DC current gain | I _C =-20mA ; V _{CE} =-5V | 20 | | | |
| h _{FE-2} | DC current gain | I _C =-1A ; V _{CE} =-5V | 60 | | 200 | |
| h _{FE-3} | DC current gain | I _C =-8A ; V _{CE} =-5V | 20 | | | |
| f _T | Transition frequency | I _C =-0.5A ; V _{CE} =-5V; f=1MHz | | 20 | | MHz |
| C _{OB} | Collector output capacitance | I _E =0; f=1MHz; V _{CB} =-10V | | 450 | | pF |

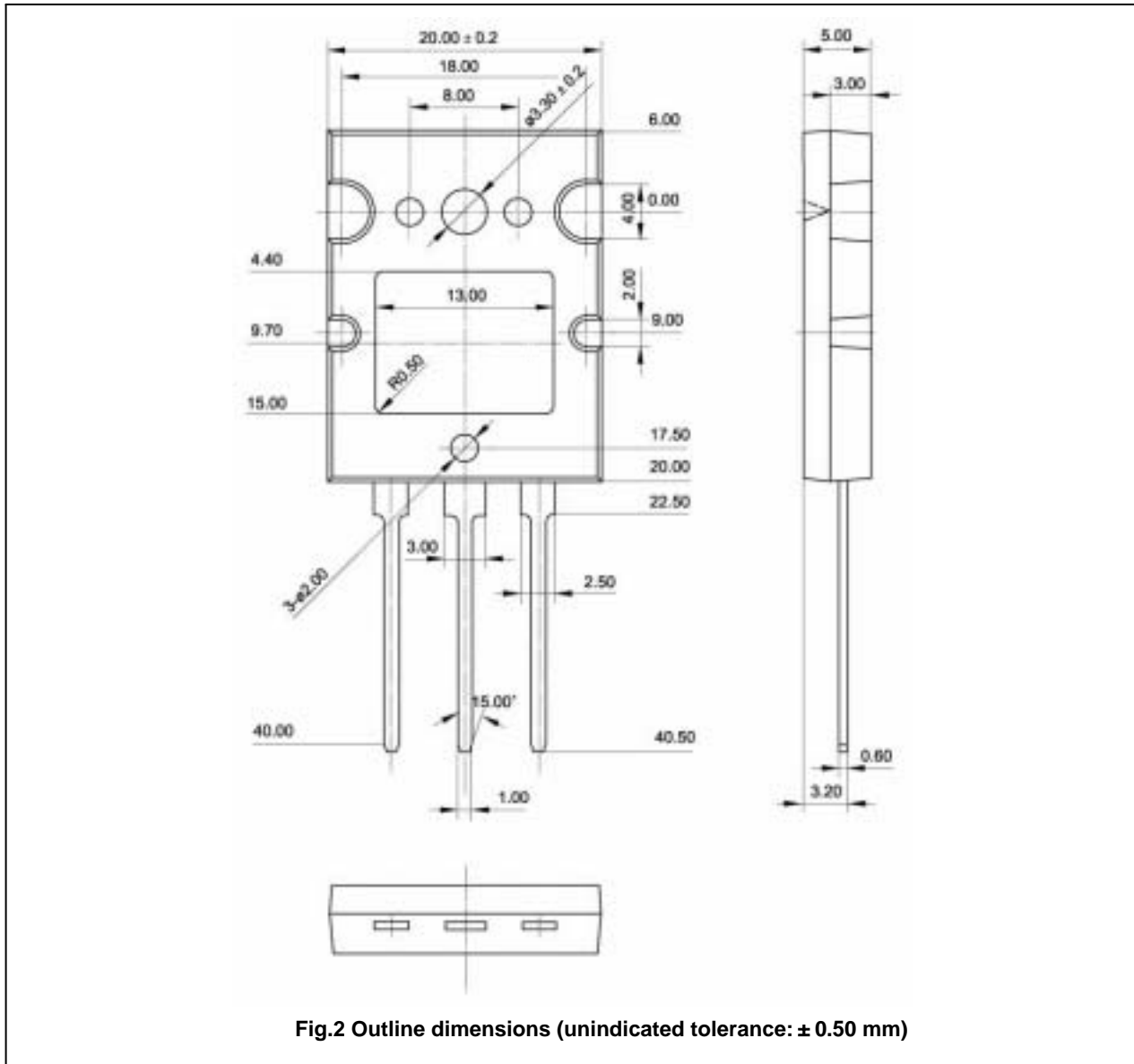
◆ h_{FE-2} classifications

| Q | S | P |
|--------|--------|---------|
| 60-120 | 80-160 | 100-200 |

Silicon PNP Power Transistors

2SB1317

PACKAGE OUTLINE



Silicon PNP Power Transistors

2SB1317

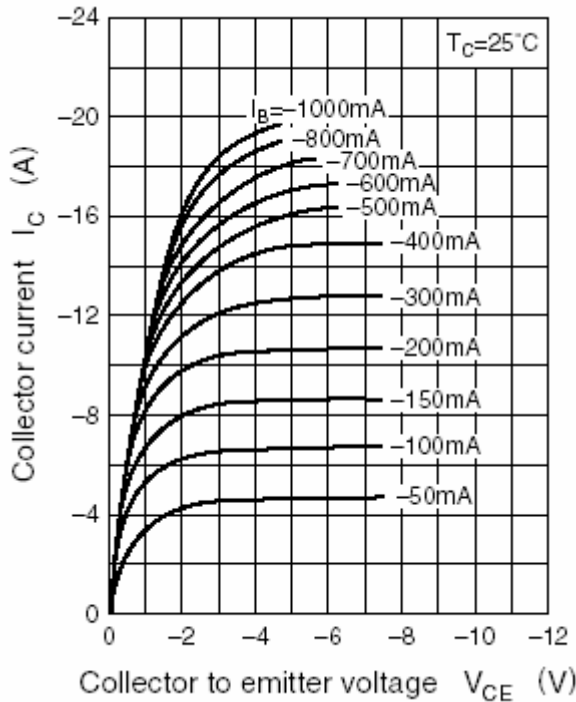


Fig.3 Static Characteristic

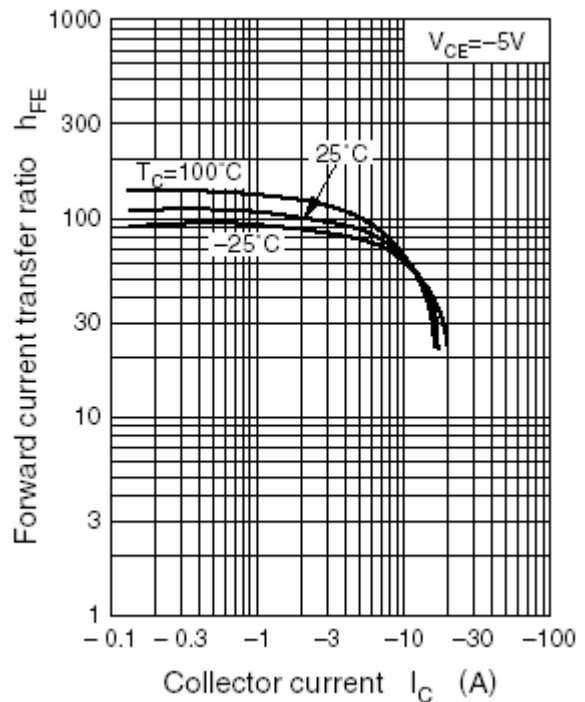


Fig.4 DC current Gain

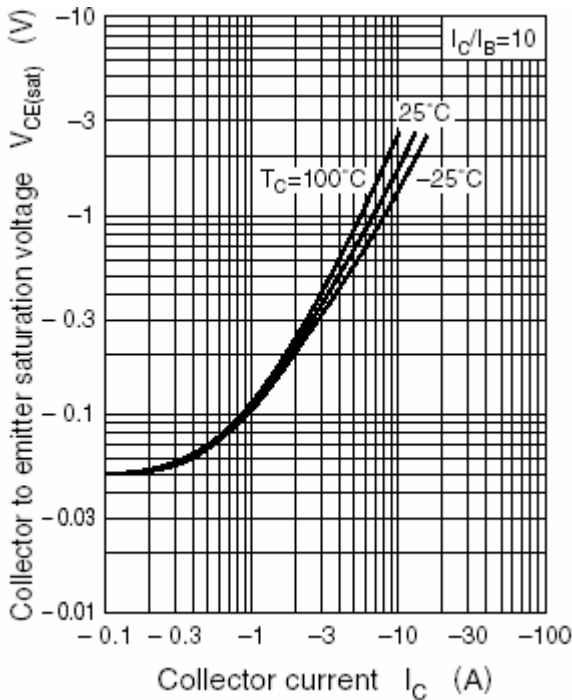


Fig.5 Collector-Emitter Saturation Voltage

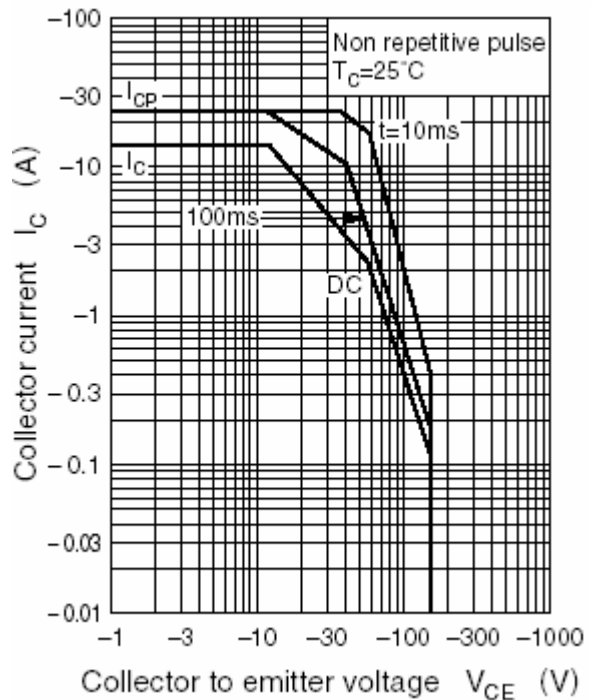


Fig.6 Safe Operating Area