

Silicon PNP Power Transistors

2SA1265N

DESCRIPTION

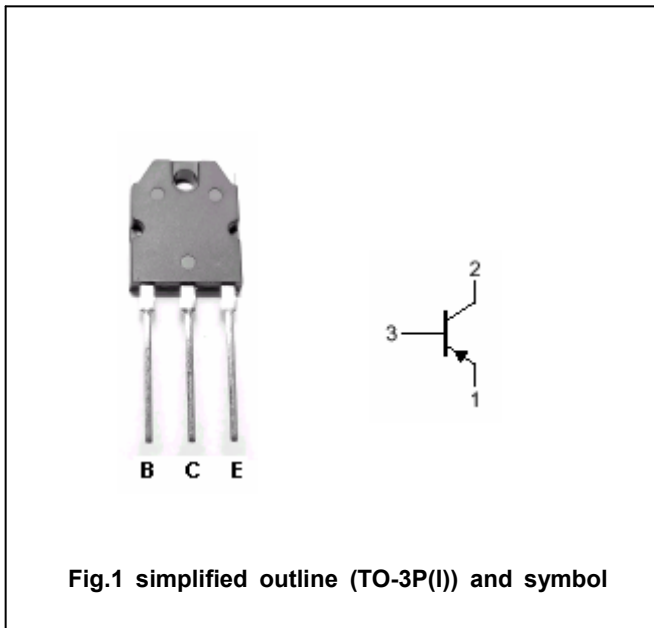
- With TO-3P(I) package
- Complement to type 2SC3182
- 2SA1265 with short pin

APPLICATIONS

- Power amplifier applications

PINNING

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



Absolute maximum ratings(Ta=25°C)

| SYMBOL           | PARAMETER                 | CONDITIONS           | VALUE   | UNIT |
|------------------|---------------------------|----------------------|---------|------|
| V <sub>CBO</sub> | Collector-base voltage    | Open emitter         | -140    | V    |
| V <sub>CEO</sub> | Collector-emitter voltage | Open base            | -140    | V    |
| V <sub>EBO</sub> | Emitter-base voltage      | Open collector       | -5      | V    |
| I <sub>C</sub>   | Collector current         |                      | -10     | A    |
| I <sub>B</sub>   | Base current              |                      | -1      | A    |
| P <sub>T</sub>   | Total power dissipation   | T <sub>C</sub> =25°C | 100     | W    |
| T <sub>j</sub>   | Junction temperature      |                      | 150     | °C   |
| T <sub>stg</sub> | Storage temperature       |                      | -55~150 | °C   |

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## CHARACTERISTICS

T<sub>j</sub>=25 °C unless otherwise specified

| SYMBOL               | PARAMETER                            | CONDITIONS                                      | MIN  | TYP. | MAX  | UNIT |
|----------------------|--------------------------------------|---|------|------|------|------|
| V <sub>(BR)CEO</sub> | Collector-emitter breakdown voltage  | I <sub>C</sub> =-50mA, I <sub>B</sub> =0        | -140 |      |      | V    |
| V <sub>CEsat</sub>   | Collector-emitter saturation voltage | I <sub>C</sub> =-7A; I <sub>B</sub> =-0.7A      |      | -0.8 | -2.0 | V    |
| V <sub>BE</sub>      | Base-emitter voltage                 | I <sub>C</sub> =-5A; V <sub>CE</sub> =-5V       |      | -1.0 | -1.5 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =-140V; I <sub>E</sub> =0       |      |      | -5   | μA   |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =-5V; I <sub>C</sub> =0         |      |      | -5   | μA   |
| h <sub>FE-1</sub>    | DC current gain                      | I <sub>C</sub> =-1A; V <sub>CE</sub> =-5V       | 55   |      | 160  |      |
| h <sub>FE-2</sub>    | DC current gain                      | I <sub>C</sub> =-5A; V <sub>CE</sub> =5V        | 35   |      |      |      |
| f <sub>T</sub>       | Transition frequency                 | I <sub>C</sub> =-1A; V <sub>CE</sub> =-5V       |      | 30   |      | MHz  |
| C <sub>ob</sub>      | Output capacitance                   | I <sub>E</sub> =0; V <sub>CB</sub> =10V; f=1MHz |      | 480  |      | pF   |

◆ h<sub>FE-1</sub> Classifications

| R      | O      |
|--------|--------|
| 55-110 | 80-160 |

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PACKAGE OUTLINE

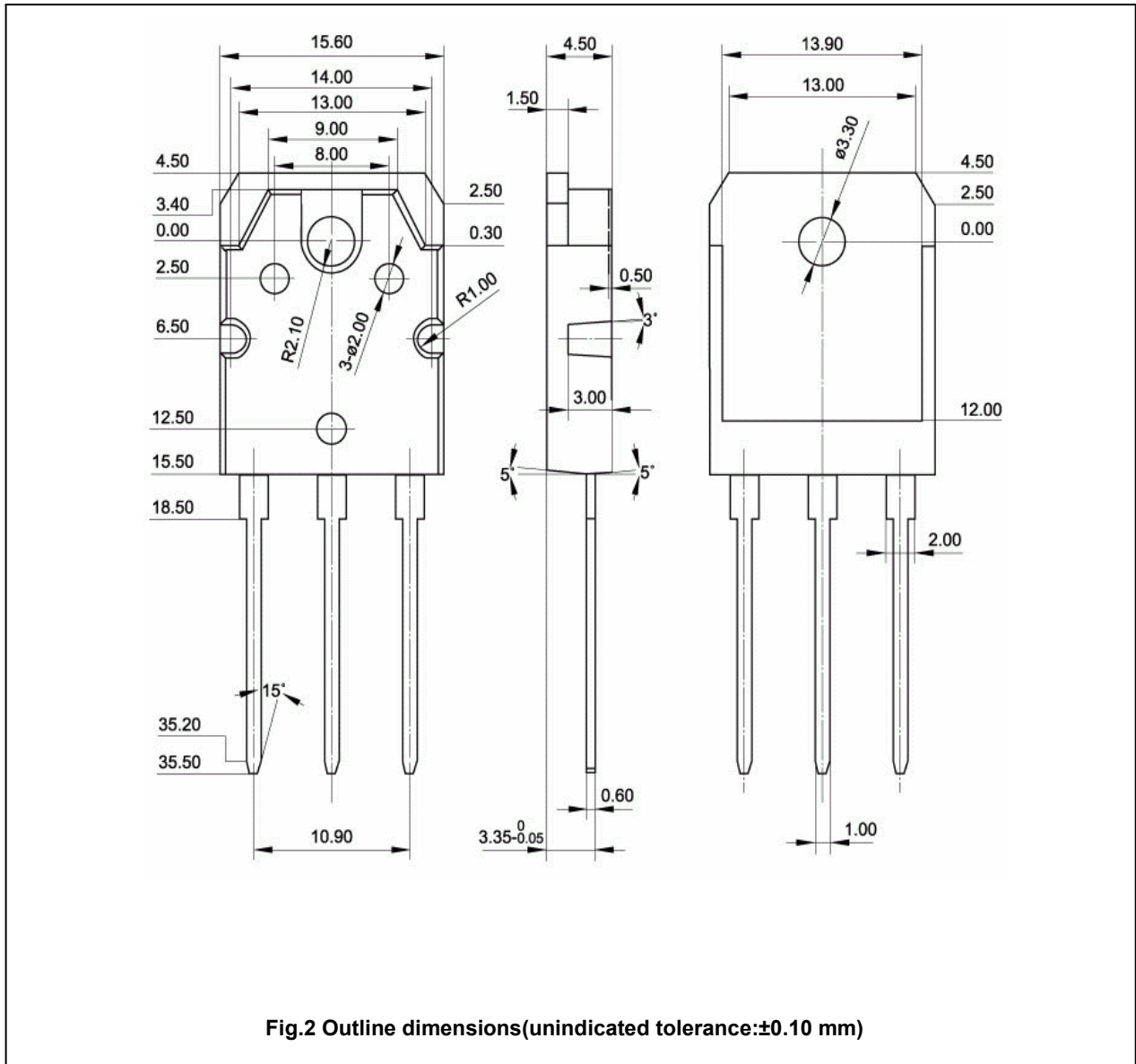


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)

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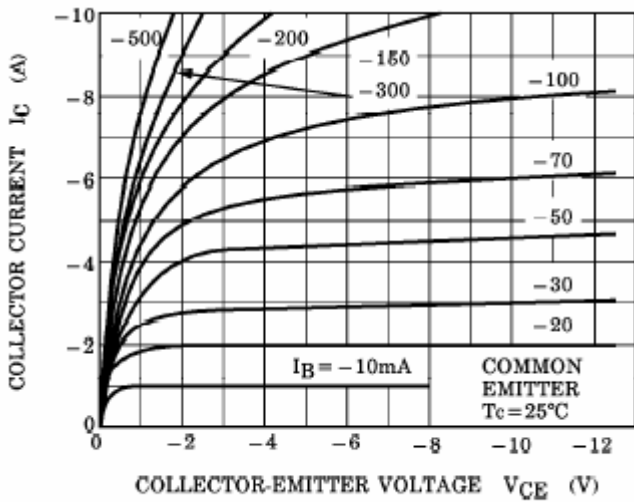


Fig.3 DC current Gain

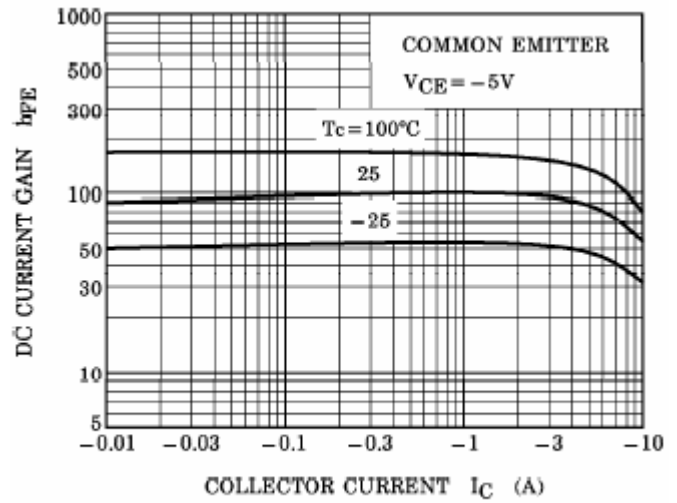


Fig.4 DC current Gain

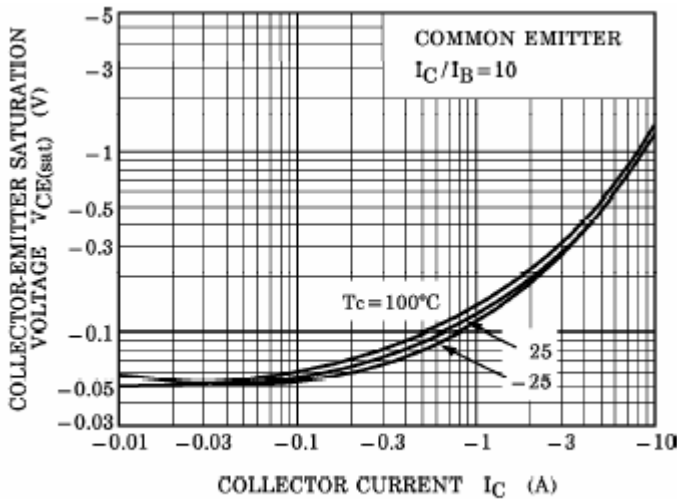


Fig.5 Collector-Emmitter Saturation Voltage

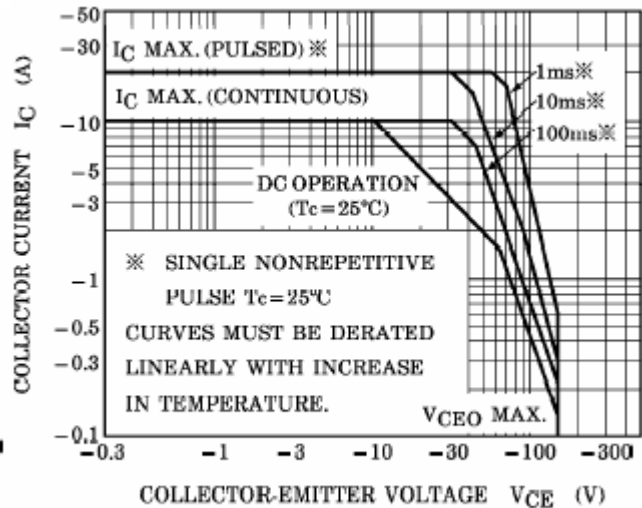


Fig.6 Safe Operating Area