

Silicon NPN Power Transistors

2SC2580

DESCRIPTION

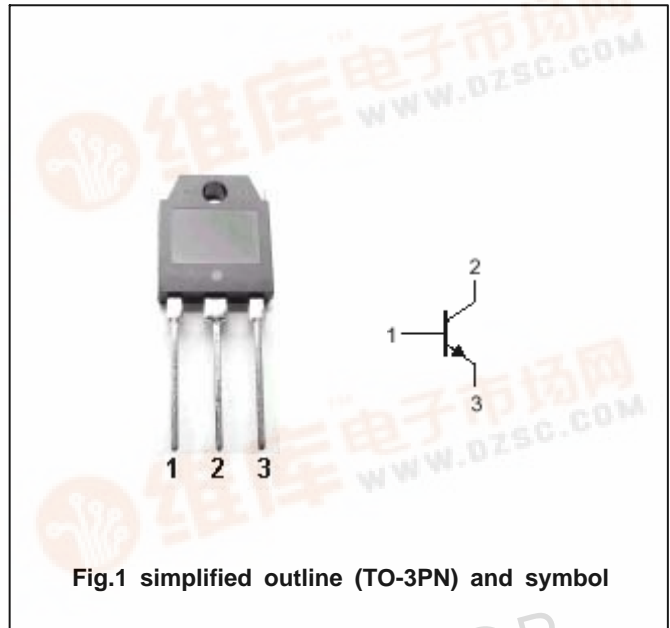
- With TO-3PN package
- Complement to type 2SA1105
- High power dissipation
- High current capability

APPLICATIONS

- Audio power amplifier
- DC-DC converter

PINNING

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



Absolute maximum ratings(Ta= )

| SYMBOL           | PARAMETER                   | CONDITIONS         | VALUE   | UNIT |
|------------------|-----------------------------|--------------------|---------|------|
| V <sub>CBO</sub> | Collector-base voltage      | Open emitter       | 180     | V    |
| V <sub>CEO</sub> | Collector-emitter voltage   | Open base          | 120     | V    |
| V <sub>EBO</sub> | Emitter-base voltage        | Open collector     | 6       | V    |
| I <sub>C</sub>   | Collector current           |                    | 9       | A    |
| P <sub>C</sub>   | Collector power dissipation | T <sub>C</sub> =25 | 90      | W    |
| T <sub>j</sub>   | Junction temperature        |                    | 150     |      |
| T <sub>stg</sub> | Storage temperature         |                    | -55~150 |      |

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## CHARACTERISTICS

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

| SYMBOL               | PARAMETER                            | CONDITIONS                                  | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|------|-----|------|
| V <sub>(BR)CEO</sub> | Collector-emitter breakdown voltage  | I <sub>C</sub> =25mA ; I <sub>B</sub> =0    | 120 |      |     | V    |
| V <sub>(BR)CBO</sub> | Collector-base breakdown voltage     | I <sub>C</sub> =1mA ; I <sub>E</sub> =0     | 180 |      |     | V    |
| V <sub>(BR)EBO</sub> | Emitter-base breakdown voltage       | I <sub>E</sub> =1mA ; I <sub>C</sub> =0     | 6   |      |     | V    |
| V <sub>CEsat</sub>   | Collector-emitter saturation voltage | I <sub>C</sub> =5A; I <sub>B</sub> =0.5A    |     |      | 2.5 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =180V; I <sub>E</sub> =0    |     |      | 100 | μ A  |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =6V; I <sub>C</sub> =0      |     |      | 100 | μ A  |
| h <sub>FE</sub>      | DC current gain                      | I <sub>C</sub> =3A ; V <sub>CE</sub> =4V    | 50  |      |     |      |
| f <sub>T</sub>       | Transition frequency                 | I <sub>C</sub> =0.5A ; V <sub>CE</sub> =10V |     | 20   |     | MHz  |

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PACKAGE OUTLINE

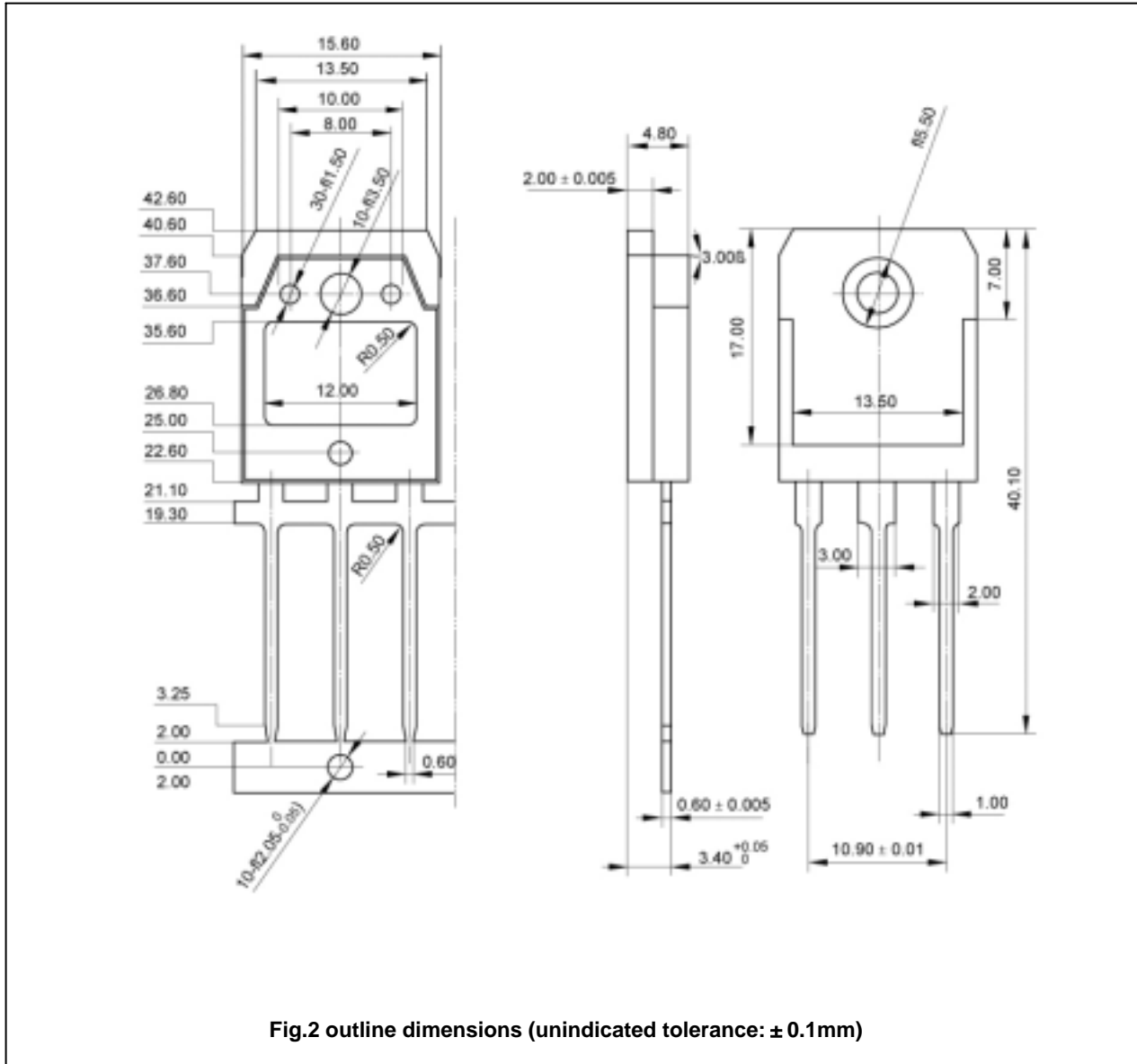


Fig.2 outline dimensions (unindicated tolerance: ± 0.1mm)