

**Silicon PNP Power Transistors**

**2SA1135**

**DESCRIPTION**

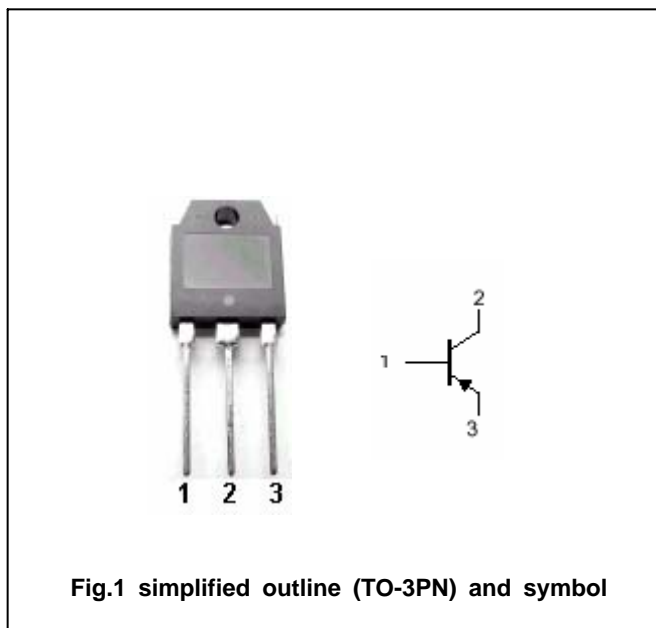
- With TO-3PN package
- Complement to type 2SC2665

**APPLICATIONS**

- For general purpose applications

**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       | -80     | V    |
| V <sub>CEO</sub> | Collector-emitter voltage   | Open base          | -80     | V    |
| V <sub>EBO</sub> | Emitter-base voltage        | Open collector     | -6      | V    |
| I <sub>C</sub>   | Collector current           |                    | -4      | A    |
| I <sub>B</sub>   | Base current                |                    | -1      | A    |
| P <sub>C</sub>   | Collector power dissipation | T <sub>C</sub> =25 | 55      | 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    | -80 |      |      | V    |
| V <sub>CEsat</sub>   | Collector-emitter saturation voltage | I <sub>C</sub> =-2A; I <sub>B</sub> =-0.2A   |     |      | -1.0 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =-80V; I <sub>E</sub> =0     |     |      | -1.0 | mA   |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =-6V; I <sub>C</sub> =0      |     |      | -1.0 | mA   |
| h <sub>FE</sub>      | DC current gain                      | I <sub>C</sub> =-1A ; V <sub>CE</sub> =-4V   | 40  |      |      |      |
| f <sub>T</sub>       | Transition frequency                 | I <sub>E</sub> =0.2A ; V <sub>CE</sub> =-10V |     | 10   |      | MHz  |

## Switching times

|                  |              |   |  |      |  |    |
|------------------|--------------|---|--|------|--|----|
| t <sub>r</sub>   | Rise time    | I <sub>C</sub> =-2A ; V <sub>CC</sub> =-6V<br>I <sub>B1</sub> =-I <sub>B2</sub> =-0.3A; R <sub>L</sub> =3 |  | 1.0  |  | μs |
| t <sub>stg</sub> | Storage time |   |  | 0.4  |  | μs |
| t <sub>f</sub>   | Fall time    |   |  | 0.15 |  | μs |

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PACKAGE OUTLINE

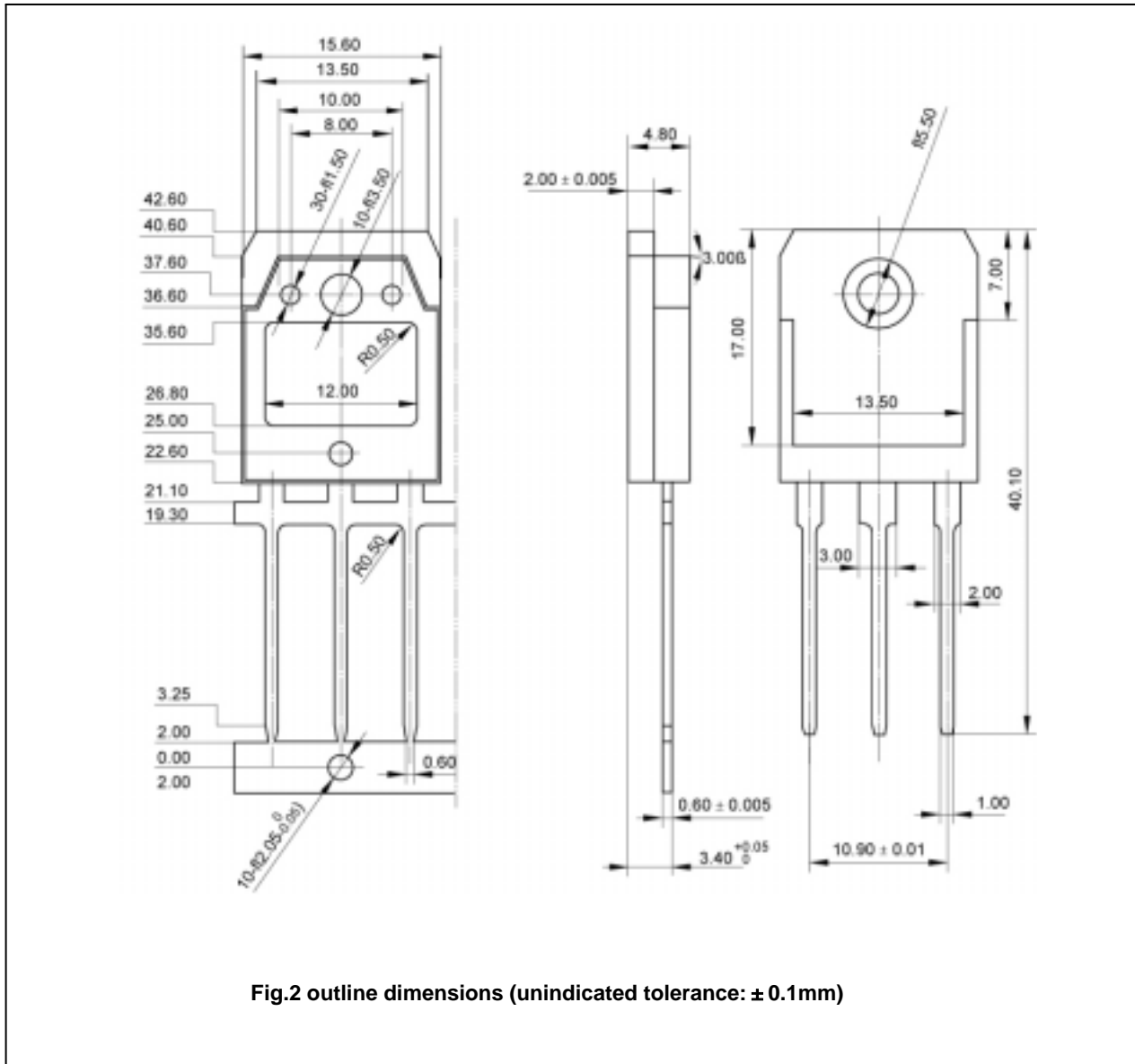


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.1$ mm)