

Silicon PNP Power Transistors

2SB555 2SB556

**DESCRIPTION**

- With TO-3 package
- Complement to type 2SD425/426
- High power dissipation

**APPLICATIONS**

- Power amplifier applications
- Recommended for high-power high-fidelity audio frequency amplifier output stage

**PINNING(see Fig.2)**

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Base        |
| 2   | Emitter     |
| 3   | Collector   |

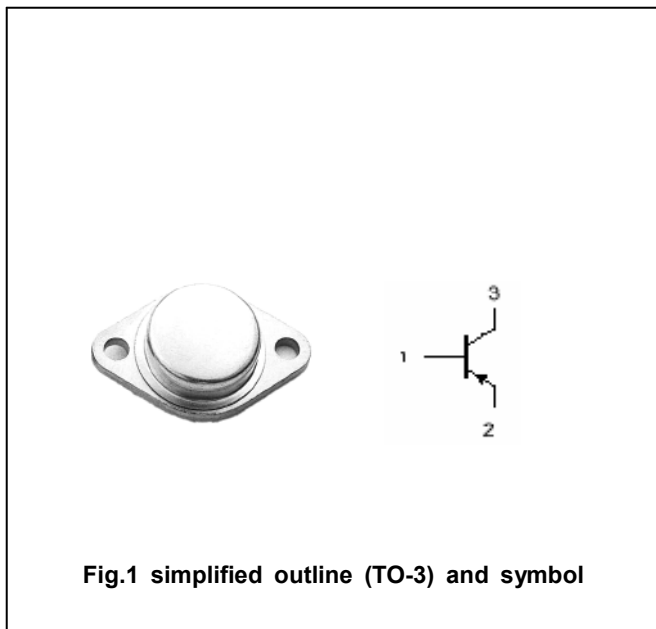


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta=□)**

| SYMBOL           | PARAMETER                   | CONDITIONS          | VALUE   | UNIT |
|------------------|-----------------------------|---------------------|---------|------|
| V <sub>CBO</sub> | Collector-base voltage      | 2SB555              | -140    | V    |
|                  |                             | 2SB556              | -120    |      |
| V <sub>CEO</sub> | Collector-emitter voltage   | 2SB555              | -140    | V    |
|                  |                             | 2SB556              | -120    |      |
| V <sub>EBO</sub> | Emitter-base voltage        | Open collector      | -5      | V    |
| I <sub>C</sub>   | Collector current           |                     | -12     | A    |
| I <sub>E</sub>   | Emitter current             |                     | 12      | A    |
| P <sub>C</sub>   | Collector power dissipation | T <sub>C</sub> =25□ | 100     | W    |
| T <sub>j</sub>   | Junction temperature        |                     | 150     | □    |
| T <sub>stg</sub> | Storage temperature         |                     | -65~150 | □    |

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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  | 2SB555   | -140 |      |      | V    |
|                      |                                      | 2SB556   | -120 |      |      |      |
| V <sub>(BR)EBO</sub> | Emitter-base breakdown voltage       | I <sub>E</sub> =-10mA ; I <sub>C</sub> =0            | -5   |      |      | V    |
| V <sub>CEsat</sub>   | Collector-emitter saturation voltage | 2SB555   |      |      | -3.0 | V    |
|                      |                                      | 2SB556   |      |      |      |      |
| V <sub>BE</sub>      | Base-emitter on voltage              | I <sub>C</sub> =-7A ; V <sub>CE</sub> =-5V           |      |      | -2.5 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =-50V ; I <sub>E</sub> =0            |      |      | -0.1 | mA   |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =-5V ; I <sub>C</sub> =0             |      |      | -0.1 | mA   |
| h <sub>FE</sub>      | DC current gain                      | I <sub>C</sub> =-2A ; V <sub>CE</sub> =-5V           | 40   |      | 140  |      |
| C <sub>OB</sub>      | Output capacitance                   | I <sub>E</sub> =0 ; V <sub>CB</sub> =-10V ; f=1.0MHz |      | 330  |      | pF   |
| f <sub>T</sub>       | Transition frequency                 | I <sub>C</sub> =-2A ; V <sub>CE</sub> =-5V           |      | 6    |      | MHz  |

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PACKAGE OUTLINE



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