

Silicon NPN Power Transistors

2SD1555

DESCRIPTION

- With TO-3P(H)IS package
- Built-in damper diode
- High voltage ,high speed
- Low collector saturation voltage

APPLICATIONS

For color TV horizontal output applications

PINNING

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

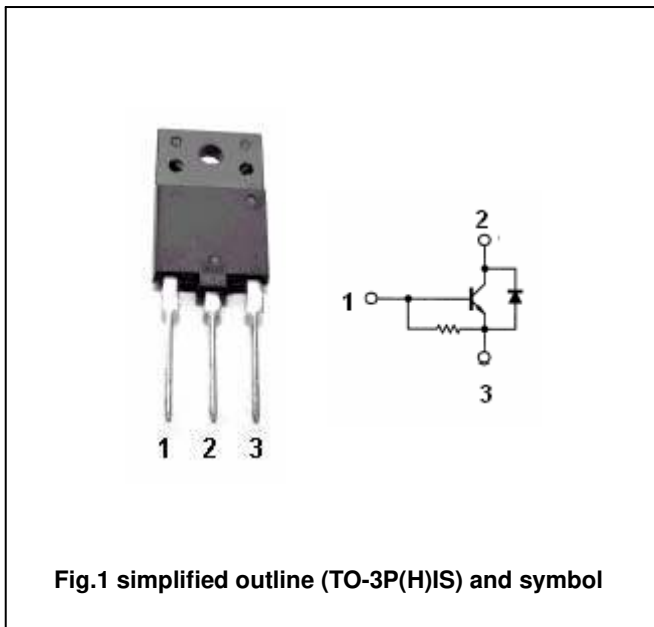


Fig.1 simplified outline (TO-3P(H)IS) and symbol

Absolute maximum ratings (Ta=25°C)

| SYMBOL           | PARAMETER                   | CONDITIONS           | VALUE   | UNIT |
|------------------|-----------------------------|----------------------|---------|------|
| V <sub>CBO</sub> | Collector-base voltage      | Open emitter         | 1500    | V    |
| V <sub>CEO</sub> | Collector-emitter voltage   | Open base            | 600     | V    |
| V <sub>EBO</sub> | Emitter-base voltage        | Open collector       | 5       | V    |
| I <sub>C</sub>   | Collector current           |                      | 5       | A    |
| I <sub>B</sub>   | Base current                |                      | 2.5     | A    |
| P <sub>C</sub>   | Collector power dissipation | T <sub>C</sub> =25°C | 50      | 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)EBO</sub> | Emitter-base breakdown voltage       | I <sub>E</sub> =0.2A, I <sub>C</sub> =0         | 5   |      |     | V    |
| V <sub>CEsat</sub>   | Collector-emitter saturation voltage | I <sub>C</sub> =4A; I <sub>B</sub> =0.8A        |     | 3.0  | 5.0 | V    |
| V <sub>BEsat</sub>   | Base-emitter saturation voltage      | I <sub>C</sub> =4A; I <sub>B</sub> =0.8A        |     |      | 1.5 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =500V; I <sub>E</sub> =0        |     |      | 10  | μA   |
| h <sub>FE</sub>      | DC current gain                      | I <sub>C</sub> =1A; V <sub>CE</sub> =5V         | 8   |      |     |      |
| f <sub>T</sub>       | Transition frequency                 | I <sub>C</sub> =0.1A; V <sub>CE</sub> =10V      |     | 3    |     | MHz  |
| C <sub>OB</sub>      | Collector output capacitance         | I <sub>E</sub> =0; V <sub>CB</sub> =10V; f=1MHz |     | 165  |     | pF   |
| V <sub>F</sub>       | Diode forward voltage                | I <sub>F</sub> =5A                              |     |      | 2.0 | V    |
| t <sub>f</sub>       | Fall time                            | I <sub>CP</sub> =4A; I <sub>B1(end)</sub> =0.8A |     | 0.5  | 1.0 | μs   |

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PACKAGE OUTLINE

