

**Silicon NPN Power Transistors**

**2SC1309**

**DESCRIPTION**

- With TO-3 package
- High voltage ,high speed

**APPLICATIONS**

- For TV vertical deflection output applications

**PINNING(see fig.2)**

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

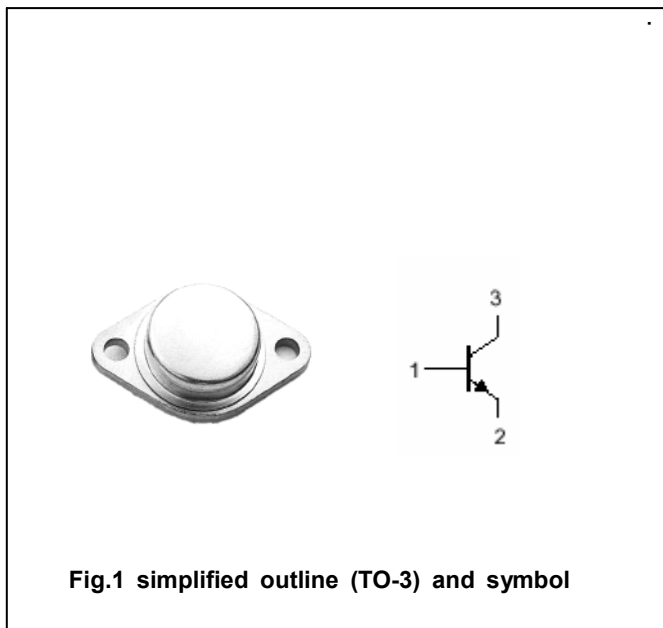


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta=□)**

| SYMBOL           | PARAMETER                 | CONDITIONS          | VALUE   | UNIT |
|------------------|---------------------------|---------------------|---------|------|
| V <sub>CBO</sub> | Collector-base voltage    | Open emitter        | 1200    | V    |
| V <sub>CEO</sub> | Collector-emitter voltage | Open base           | 500     | V    |
| V <sub>EBO</sub> | Emitter-base voltage      | Open collector      | 6       | V    |
| I <sub>C</sub>   | Collector current         |                     | 5       | A    |
| P <sub>T</sub>   | Total power dissipation   | T <sub>C</sub> =25□ | 80      | W    |
| T <sub>j</sub>   | Junction temperature      |                     | 150     | □    |
| T <sub>stg</sub> | Storage temperature       |                     | -55~150 | □    |

## Silicon NPN Power Transistors

## 2SC1309

## CHARACTERISTICS

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

| SYMBOL                | PARAMETER                            | CONDITIONS                                 | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|--|-----|------|-----|------|
| V <sub>CEO(SUS)</sub> | Collector-emitter sustaining voltage | I <sub>C</sub> =100mA; I <sub>B</sub> =0   | 500 |      |     | V    |
| V <sub>(BR)EBO</sub>  | Emitter-base breakdown voltage       | I <sub>E</sub> =1.0mA; I <sub>C</sub> =0   | 5   |      |     | V    |
| V <sub>CEsat</sub>    | Collector-emitter saturation voltage | I <sub>C</sub> =5 A; I <sub>B</sub> =1.2 A |     |      | 10  | V    |
| V <sub>BEsat</sub>    | Base-emitter saturation voltage      | I <sub>C</sub> =5 A; I <sub>B</sub> =1.2 A |     |      | 2   | V    |
| I <sub>CBO</sub>      | Collector cut-off current            | V <sub>CB</sub> =1200V; I <sub>E</sub> =0  |     |      | 1.0 | mA   |
| I <sub>EBO</sub>      | Emitter cut-off current              | V <sub>EB</sub> =5V; I <sub>C</sub> =0     |     |      | 1.0 | mA   |
| h <sub>FE</sub>       | DC current gain                      | I <sub>C</sub> =5A ; V <sub>CE</sub> =10V  | 10  |      |     |      |

PACKAGE OUTLINE

