

**Silicon NPN Power Transistors**

**2SC1325**

**DESCRIPTION**

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

**APPLICATIONS**

- Designed for use in large screen color deflection circuits

**PINNING(see fig.2)**

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

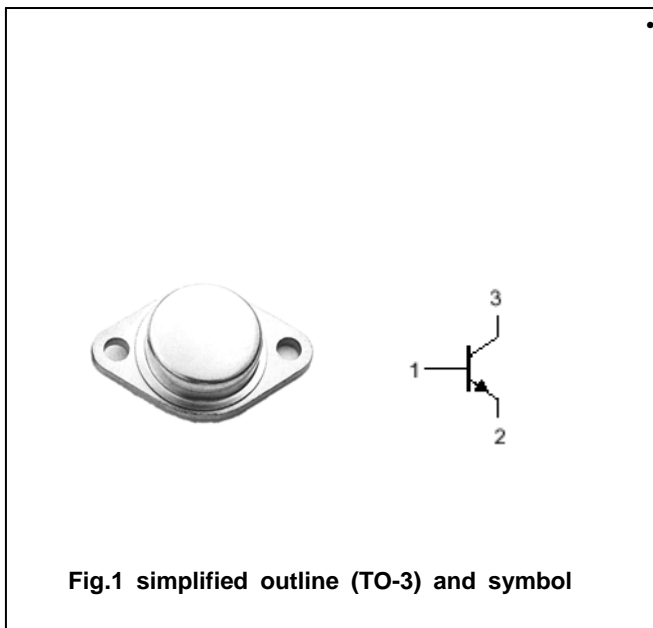


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta=°C)**

| SYMBOL    | PARAMETER                 | CONDITIONS        | VALUE   | UNIT |
|-----------|---------------------------|-------------------|---------|------|
| $V_{CBO}$ | Collector-base voltage    | Open emitter      | 1500    | V    |
| $V_{CEO}$ | Collector-emitter voltage | Open base         | 600     | V    |
| $V_{EBO}$ | Emitter-base voltage      | Open collector    | 6       | V    |
| $I_C$     | Collector current         |                   | 6       | A    |
| $I_{CM}$  | Collector current-peak    |                   | 12      | A    |
| $I_B$     | Base current              |                   | 2       | A    |
| $P_D$     | Total power dissipation   | $T_C=25^{\circ}C$ | 80      | W    |
| $T_j$     | Junction temperature      |                   | 150     | °C   |
| $T_{stg}$ | Storage temperature       |                   | -65~150 | °C   |

**THERMAL CHARACTERISTICS**

| SYMBOL      | PARAMETER                           | MAX  | UNIT |
|-------------|-------------------------------------|------|------|
| $R_{thj-c}$ | Thermal resistance junction to case | 1.56 | °C/W |

## Silicon NPN Power Transistors

## 2SC1325

## CHARACTERISTICS

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

| SYMBOL                | PARAMETER                            | CONDITIONS   | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|--|-----|------|-----|------|
| V <sub>CE0(SUS)</sub> | Collector-emitter sustaining voltage | I <sub>C</sub> =100mA; I <sub>B</sub> =0   | 600 |      |     | V    |
| V <sub>CEsat</sub>    | Collector-emitter saturation voltage | I <sub>C</sub> =5 A; I <sub>B</sub> =1.2 A   |     |      | 4.0 | V    |
| V <sub>BEsat</sub>    | Base-emitter saturation voltage      | I <sub>C</sub> =5 A; I <sub>B</sub> =1.2 A   |     |      | 1.1 | V    |
| I <sub>CES</sub>      | Collector cut-off current            | V <sub>CE</sub> =1500V; V <sub>BE</sub> =0   |     |      | 1.0 | mA   |
| I <sub>CBO</sub>      | Collector cut-off current            | V <sub>CB</sub> =1000V; I <sub>E</sub> =0  |     |      | 20  | μ A  |
| I <sub>EBO</sub>      | Emitter cut-off current              | V <sub>EB</sub> =5V; I <sub>C</sub> =0   |     |      | 200 | μ A  |
| h <sub>FE-1</sub>     | DC current gain                      | I <sub>C</sub> =1A ; V <sub>CE</sub> =15V  | 10  |      | 45  |      |
| h <sub>FE-2</sub>     | DC current gain                      | I <sub>C</sub> =5A ; V <sub>CE</sub> =15V  | 5   |      | 35  |      |
| t <sub>s</sub>        | Storage time                         | I <sub>C</sub> =5A ; I <sub>B1</sub> =-I <sub>B2</sub> =1.0A<br>P <sub>W</sub> =20 μ s |     |      | 10  | μ s  |
| t <sub>f</sub>        | Fall time                            |  |     |      | 0.8 | μ s  |

PACKAGE OUTLINE

