

Silicon NPN Power Transistors

2SC3250

DESCRIPTION

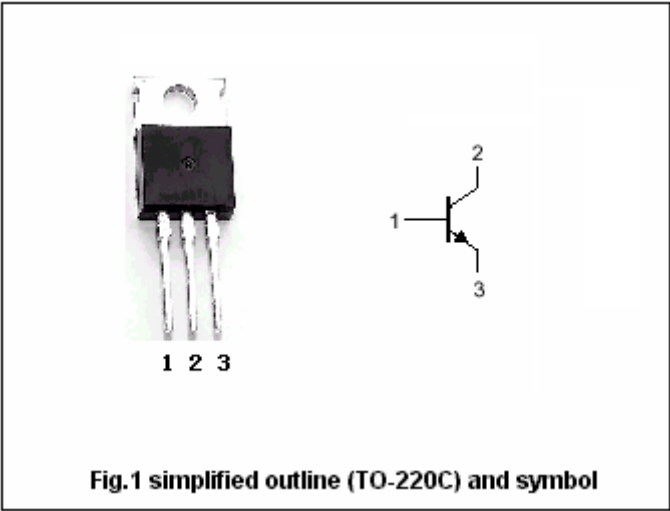
- With TO-220 package
- High  $V_{CEO}$
- Large  $P_C$

APPLICATIONS

- For TV video output amplifier applications

PINNING

| PIN | DESCRIPTION                          |
|-----|--------------------------------------|
| 1   | Base                                 |
| 2   | Collector;connected to mounting base |
| 3   | Emitter                              |



Absolute maximum ratings ( $T_a=25^{\circ}\text{C}$ )

| SYMBOL    | PARAMETER                   | CONDITIONS               | VALUE   | UNIT               |
|-----------|-----------------------------|--------------------------|---------|--------------------|
| $V_{CBO}$ | Collector-base voltage      | Open emitter             | 300     | V                  |
| $V_{CEO}$ | Collector-emitter voltage   | Open base                | 300     | V                  |
| $V_{EBO}$ | Emitter-base voltage        | Open collector           | 7       | V                  |
| $I_C$     | Collector current           |                          | 0.1     | A                  |
| $I_{CP}$  | Collector current-peak      |                          | 0.2     | A                  |
| $P_C$     | Collector power dissipation | $T_C=25^{\circ}\text{C}$ | 15      | W                  |
| $T_j$     | Junction temperature        |                          | 150     | $^{\circ}\text{C}$ |
| $T_{stg}$ | Storage temperature         |                          | -55~150 | $^{\circ}\text{C}$ |

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## CHARACTERISTICS

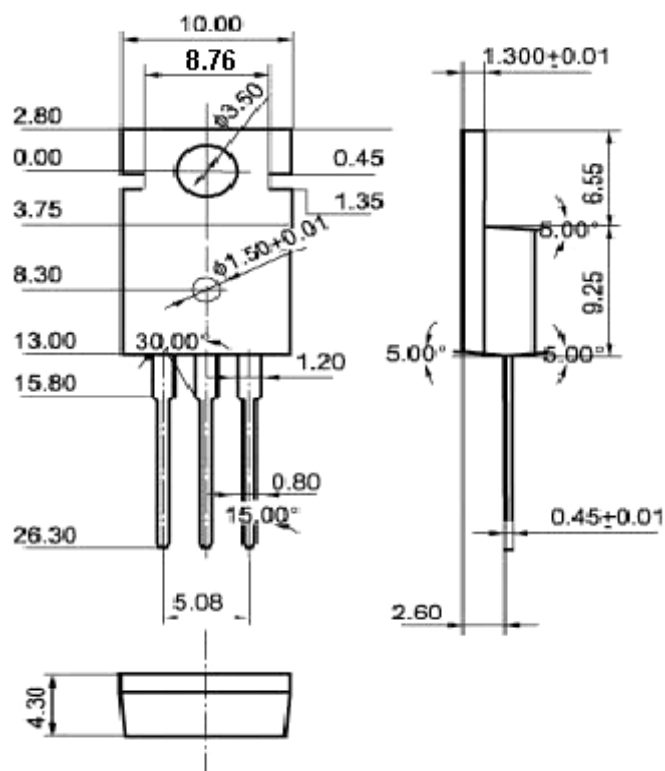
T<sub>j</sub>=25°C unless otherwise specified

| SYMBOL               | PARAMETER                            | CONDITIONS                                      | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|-------------------------------------------------|-----|------|-----|------|
| V <sub>(BR)CEO</sub> | Collector-emitter breakdown voltage  | I <sub>C</sub> =0.1mA ; I <sub>B</sub> =0       | 300 |      |     | V    |
| V <sub>(BR)CBO</sub> | Collector-base breakdown voltage     | I <sub>C</sub> =0.1mA ; I <sub>E</sub> =0       | 300 |      |     | V    |
| V <sub>(BR)EBO</sub> | Emitter-base breakdown voltage       | I <sub>E</sub> =0.1mA ; I <sub>C</sub> =0       | 7   |      |     | V    |
| V <sub>CE(sat)</sub> | Collector-emitter saturation voltage | I <sub>C</sub> =50mA ; I <sub>B</sub> =5mA      |     |      | 1.5 | V    |
| V <sub>BE</sub>      | Base-emitter on voltage              | I <sub>C</sub> =30mA ; V <sub>CE</sub> =10V     |     |      | 1.2 | V    |
| h <sub>FE-1</sub>    | DC current gain                      | I <sub>C</sub> =5mA ; V <sub>CE</sub> =50V      | 50  |      | 250 |      |
| h <sub>FE-2</sub>    | DC current gain                      | I <sub>C</sub> =30mA ; V <sub>CE</sub> =10V     | 30  |      |     |      |
| C <sub>OB</sub>      | Collector output capacitance         | I <sub>E</sub> =0; V <sub>CB</sub> =30V, f=1MHz |     |      | 5.0 | pF   |
| f <sub>T</sub>       | Transition frequency                 | I <sub>E</sub> =-20mA ; V <sub>CB</sub> =30V    | 70  | 100  |     | MHz  |

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## PACKAGE OUTLINE

Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.10$  mm)