# 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 |

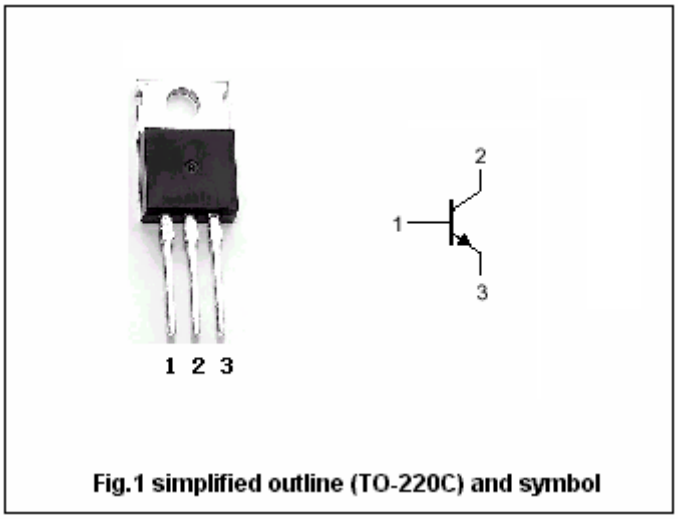


**Fig.1 simplified outline (TO-220C) and symbol**

## Absolute maximum ratings (Ta=25℃)

| 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℃ | 15 | W |
| $T_j$ | Junction temperature | | 150 | ℃ |
| $T_{stg}$ | Storage temperature | | -55~150 | ℃ |

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## CHARACTERISTICS

**Tj=25℃ unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage | $I_C$=0.1mA ;$I_B$=0 | 300 | | | V |
| $V_{(BR)CBO}$ | Collector-base breakdown voltage | $I_C$=0.1mA ;$I_E$=0 | 300 | | | V |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage | $I_E$=0.1mA ;$I_C$=0 | 7 | | | V |
| $V_{CE(sat)}$ | Collector-emitter saturation voltage | $I_C$=50mA ;$I_B$=5mA | | | 1.5 | V |
| $V_{BE}$ | Base-emitter on voltage | $I_C$=30mA ; $V_{CE}$=10V | | | 1.2 | V |
| $h_{FE-1}$ | DC current gain | $I_C$=5mA ; $V_{CE}$=50V | 50 | | 250 | |
| $h_{FE-2}$ | DC current gain | $I_C$=30mA ; $V_{CE}$=10V | 30 | | | |
| $C_{OB}$ | Collector output capacitance | $I_E$=0; $V_{CB}$=30V,f=1MHz | | | 5.0 | pF |
| $f_T$ | Transition frequency | $I_E$=-20mA ; $V_{CB}$=30V | 70 | 100 | | MHz |

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**PACKAGE OUTLINE**

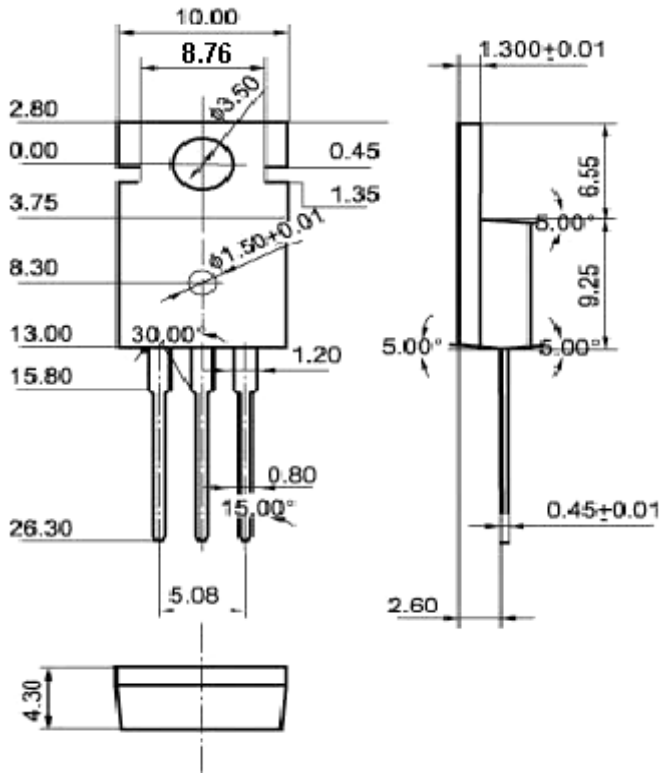


**Fig.2 outline dimensions (unindicated tolerance: ±0.10 mm)**