

Silicon PNP Power Transistors

2SA1280

DESCRIPTION

- With TO-220F package
- High breakdown voltage
- High power dissipation

APPLICATIONS

- For use in low frequency power amplifier  
Color TV vertical deflection output

PINNING

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

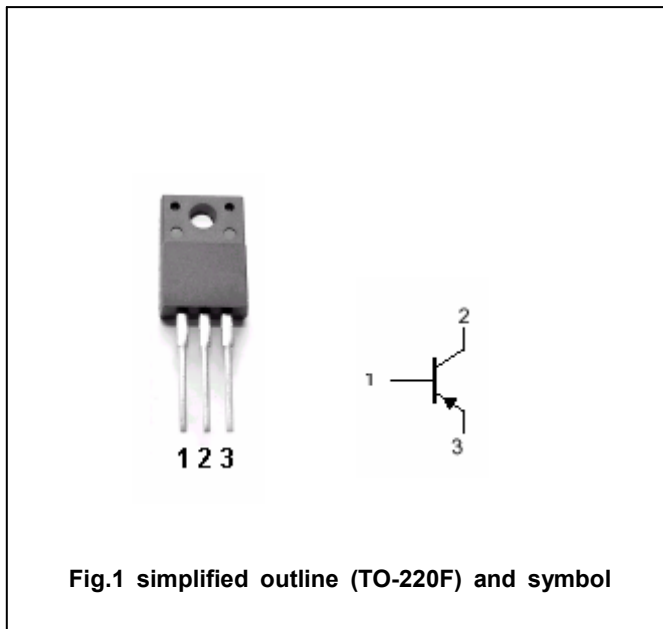


Fig.1 simplified outline (TO-220F) and symbol

Absolute maximum ratings (Ta=25°C)

| SYMBOL           | PARAMETER                 | CONDITIONS           | VALUE   | UNIT |
|------------------|---------------------------|----------------------|---------|------|
| V <sub>CBO</sub> | Collector-base voltage    | Open emitter         | -150    | V    |
| V <sub>CEO</sub> | Collector-emitter voltage | Open base            | -150    | V    |
| V <sub>EBO</sub> | Emitter-base voltage      | Open collector       | -6      | V    |
| I <sub>C</sub>   | Collector current         |                      | -1.5    | A    |
| P <sub>C</sub>   | Collector dissipation     | T <sub>C</sub> =25°C | 25      | 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)CEO</sub> | Collector-emitter breakdown voltage  | I <sub>C</sub> =-10mA ; I <sub>B</sub> =0          | -150 |      |      | V    |
| V <sub>CEsat</sub>   | Collector-emitter saturation voltage | I <sub>C</sub> =-500mA; I <sub>B</sub> =-50mA      |      |      | -3.0 | V    |
| V <sub>BE</sub>      | Base-emitter on voltage              | I <sub>C</sub> =-50mA ; V <sub>CE</sub> =-4V       |      |      | -1.0 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =-120V; I <sub>E</sub> =0          |      |      | -1   | μA   |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =-6V; I <sub>C</sub> =0            |      |      | -1   | μA   |
| h <sub>FE-1</sub>    | DC current gain                      | I <sub>C</sub> =-50mA ; V <sub>CE</sub> =-4V       | 60   |      | 200  |      |
| h <sub>FE-2</sub>    | DC current gain                      | I <sub>C</sub> =-500mA ; V <sub>CE</sub> =-10V     | 60   |      |      |      |
| f <sub>T</sub>       | Transition frequency                 | I <sub>C</sub> =-500mA ; V <sub>CE</sub> =-10V     | 4    |      |      | MHz  |
| C <sub>OB</sub>      | Output capacitance                   | I <sub>E</sub> =0 ; V <sub>CB</sub> =-100V; f=1MHz |      | 30   |      | pF   |

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PACKAGE OUTLINE

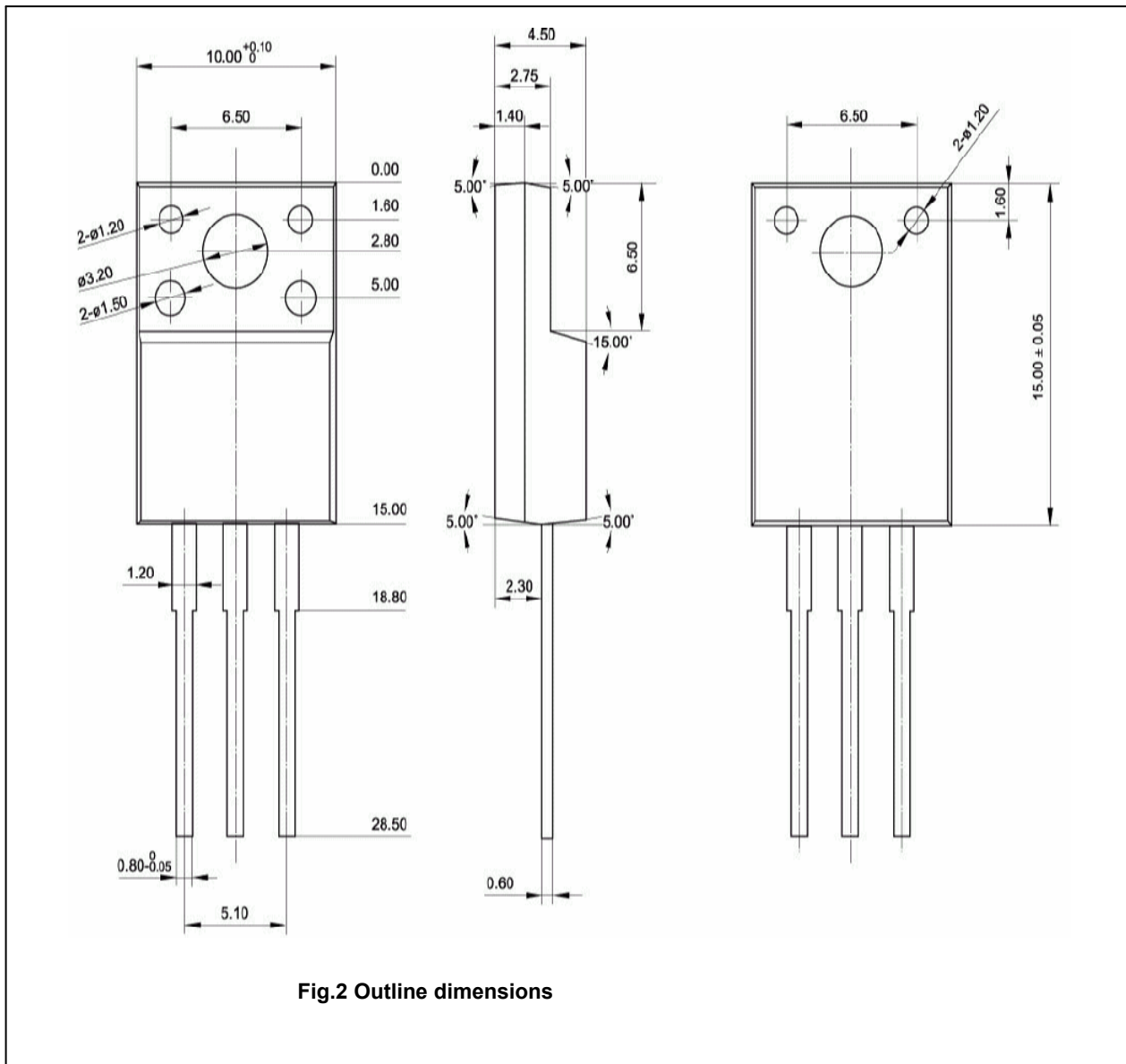


Fig.2 Outline dimensions