

Silicon NPN Power Transistors

2SD728

DESCRIPTION

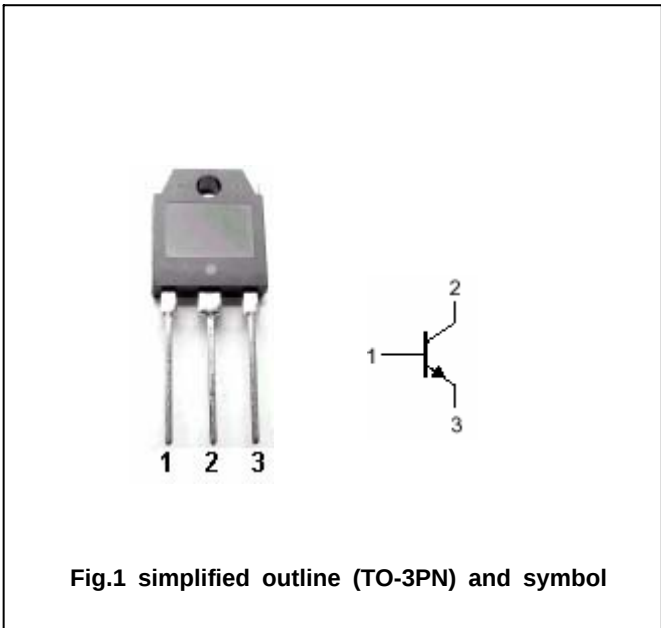
- With TO-3PN package
- Complement to type 2SB692

APPLICATIONS

- For low frequency power amplifier and power switching applications

PINNING

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



Absolute maximum ratings(Ta=25 )

| SYMBOL    | PARAMETER                   | CONDITIONS     | VALUE   | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| $V_{CBO}$ | Collector-base voltage      | Open emitter   | 150     | V    |
| $V_{CEO}$ | Collector-emitter voltage   | Open base      | 150     | V    |
| $V_{EBO}$ | Emitter-base voltage        | Open collector | 5       | V    |
| $I_C$     | Collector current           |                | 6       | A    |
| $P_C$     | Collector power dissipation | $T_C=25$       | 70      | 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  | $I_C=50mA ; I_B=0$            | 150 |      |     | V    |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage       | $I_E=1mA ; I_C=0$             | 5   |      |     | V    |
| $V_{CEsat}$   | Collector-emitter saturation voltage | $I_C=5A ; I_B=0.5A$           |     |      | 2.0 | V    |
| $I_{CBO}$     | Collector cut-off current            | $V_{CB}=150V ; I_E=0$         |     |      | 0.1 | mA   |
| $I_{EBO}$     | Emitter cut-off current              | $V_{EB}=5V ; I_C=0$           |     |      | 0.1 | mA   |
| $h_{FE-1}$    | DC current gain                      | $I_C=1A ; V_{CE}=5V$          | 100 |      |     |      |
| $h_{FE-2}$    | DC current gain                      | $I_C=5A ; V_{CE}=5V$          | 20  |      |     |      |
| $f_T$         | Transition frequency                 | $I_C=1A ; V_{CE}=5V$          |     | 7    |     | MHz  |
| $C_{OB}$      | Collector output capacitance         | $I_E=0 ; f=1MHz ; V_{CB}=10V$ |     | 160  |     | pF   |

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## PACKAGE OUTLINE

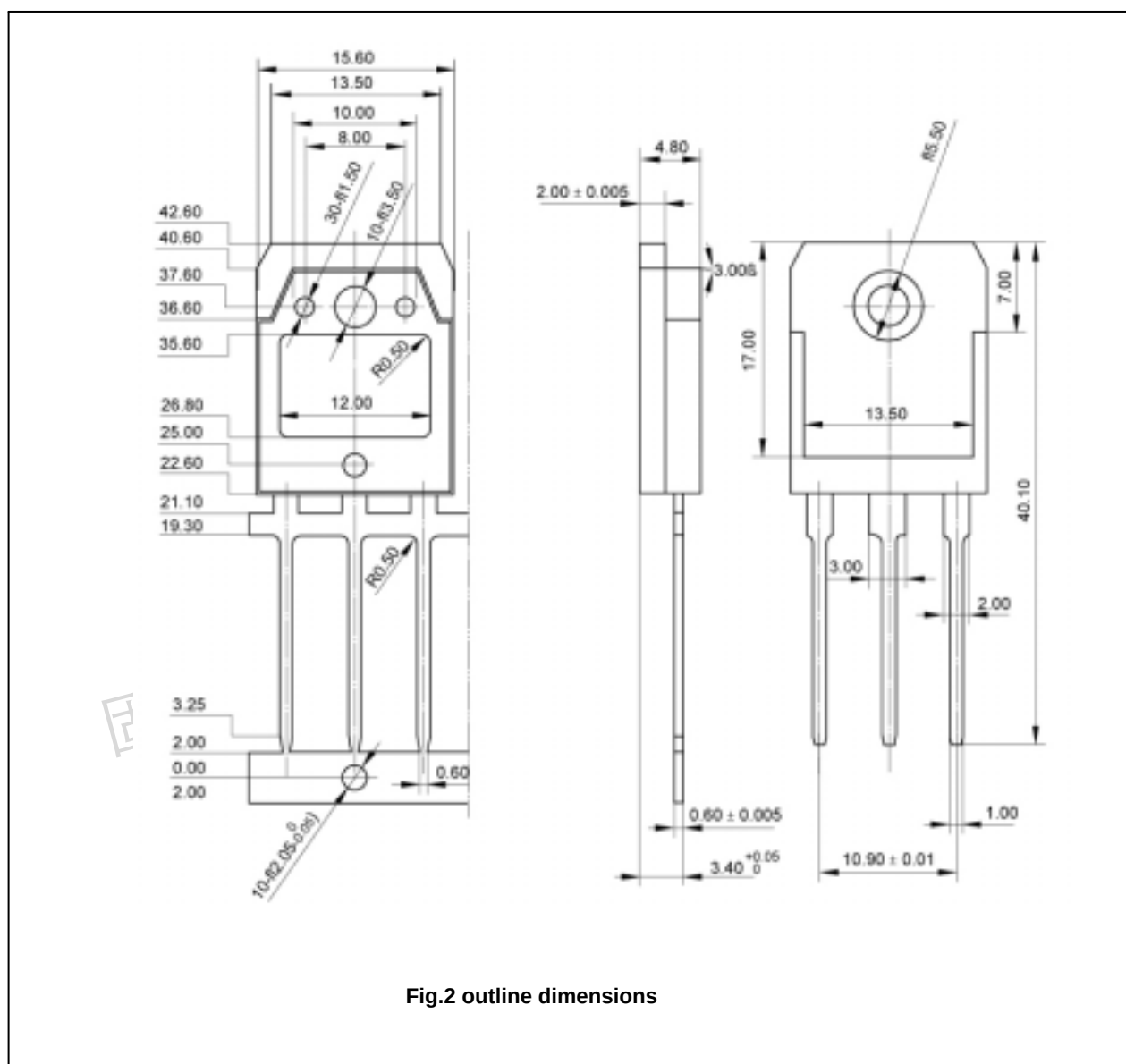


Fig.2 outline dimensions