

Silicon NPN Power Transistors

2SC3762

**DESCRIPTION**

- With TO-3PML package
- High speed switching
- High current capability

**APPLICATIONS**

- For use in high speed and power switching applications

**PINNING**

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

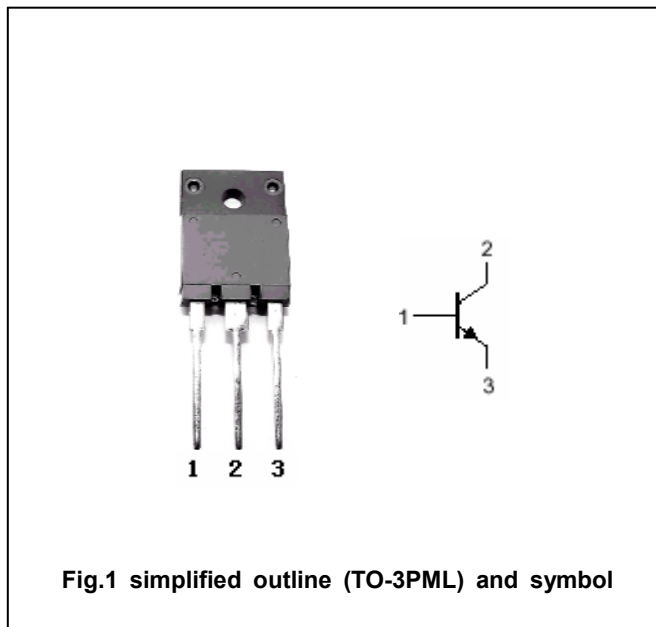


Fig.1 simplified outline (TO-3PML) and symbol

**Absolute maximum ratings (Ta=25°C)**

| SYMBOL           | PARAMETER                 | CONDITIONS           | MAX     | UNIT |
|------------------|---------------------------|----------------------|---------|------|
| V <sub>CBO</sub> | Collector-base voltage    | Open emitter         | 150     | V    |
| V <sub>CEO</sub> | Collector-emitter voltage | Open base            | 100     | V    |
| V <sub>EBO</sub> | Emitter-base voltage      | Open collector       | 6       | V    |
| I <sub>C</sub>   | Collector current         |                      | 15      | A    |
| P <sub>C</sub>   | Collector dissipation     | T <sub>C</sub> =25°C | 65      | 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> =25mA ; I <sub>B</sub> =0  | 100 |      |     | V    |
| V <sub>(BR)CBO</sub> | Collector-base breakdown voltage     | I <sub>C</sub> =1mA ; I <sub>E</sub> =0   | 150 |      |     | V    |
| V <sub>(BR)EBO</sub> | Emitter-base breakdown voltage       | I <sub>E</sub> =1mA ; I <sub>C</sub> =0   | 6   |      |     | V    |
| V <sub>CEsat</sub>   | Collector-emitter saturation voltage | I <sub>C</sub> =10A ; I <sub>B</sub> =1A  |     |      | 0.6 | V    |
| V <sub>BEsat</sub>   | Base-emitter saturation voltage      | I <sub>C</sub> =10A ; I <sub>B</sub> =1A  |     |      | 1.5 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =100V ; I <sub>E</sub> =0 |     |      | 10  | μA   |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =4V ; I <sub>C</sub> =0   |     |      | 10  | μA   |
| h <sub>FE</sub>      | DC current gain                      | I <sub>C</sub> =5A ; V <sub>CE</sub> =5V  | 30  |      | 120 |      |

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PACKAGE OUTLINE

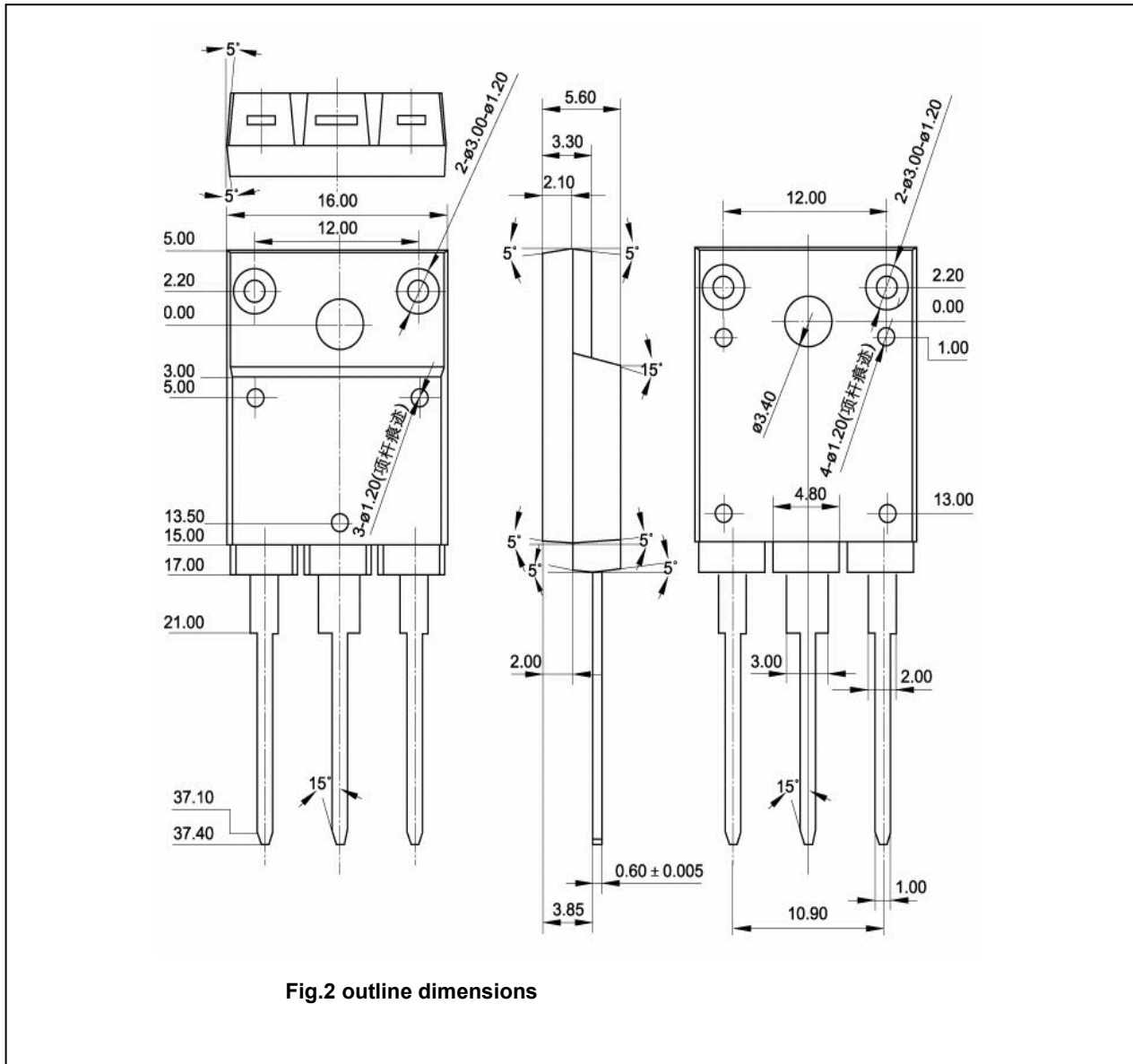


Fig.2 outline dimensions