

Silicon NPN Power Transistors

BU2527AX

DESCRIPTION

- With TO-3PML package
- High voltage
- High speed switching

APPLICATIONS

- For use in horizontal deflection circuits of high resolution monitors

PINNING

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

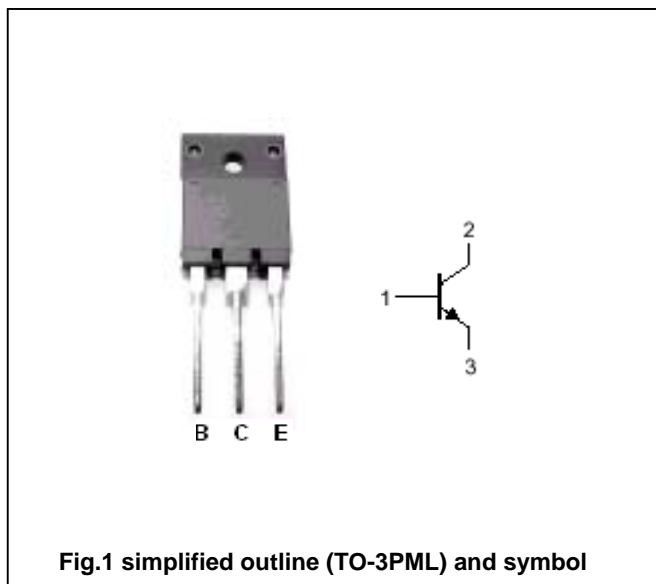


Fig.1 simplified outline (TO-3PML) and symbol

Absolute maximum ratings(Ta=25 )

| SYMBOL           | PARAMETER                          | CONDITIONS         | VALUE   | UNIT |
|------------------|------------------------------------|--------------------|---------|------|
| V <sub>CBO</sub> | Collector-base voltage             | Open emitter       | 1500    | V    |
| V <sub>CEO</sub> | Collector-emitter voltage          | Open base          | 800     | V    |
| V <sub>EBO</sub> | Emitter-base voltage               | Open collector     | 7.5     | V    |
| I <sub>C</sub>   | Collector current (DC)             |                    | 12      | A    |
| I <sub>CP</sub>  | Collector current (Pulse)          |                    | 30      | A    |
| I <sub>B</sub>   | Base current (DC)                  |                    | 8       | A    |
| I <sub>BM</sub>  | Base current (Pulse)               |                    | 12      | A    |
| P <sub>tot</sub> | Total power dissipation            | T <sub>C</sub> =25 | 45      | W    |
| T <sub>j</sub>   | Max.operating junction temperature |                    | 150     |      |
| T <sub>stg</sub> | Storage temperature                |                    | -55~150 |      |

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## CHARACTERISTICS

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

| SYMBOL                | PARAMETER                            | CONDITIONS   | MIN | TYP. | MAX         | UNIT |
|-----------------------|--------------------------------------|--|-----|------|-------------|------|
| V <sub>CEO(SUS)</sub> | Collector-emitter sustaining voltage | I <sub>C</sub> =100mA ; I <sub>B</sub> =0, L=25mH                              | 800 |      |             | V    |
| V <sub>EBO</sub>      | Emitter-base breakdown voltage       | I <sub>B</sub> =1mA ; I <sub>C</sub> =0  | 7.5 | 13.5 |             | V    |
| V <sub>CEsat</sub>    | Collector-emitter saturation voltage | I <sub>C</sub> =6A ; I <sub>B</sub> =1.2A                                      |     |      | 5.0         | V    |
| V <sub>BEsat</sub>    | Emitter-base saturation voltage      | I <sub>C</sub> =6A ; I <sub>B</sub> =1.2A                                      |     |      | 1.3         | V    |
| I <sub>CES</sub>      | Collector cut-off current            | V <sub>CE</sub> =BV <sub>CEs</sub> ; V <sub>BE</sub> =0<br>T <sub>C</sub> =125 |     |      | 0.25<br>2.0 | mA   |
| I <sub>EBO</sub>      | Emitter cut-off current              | V <sub>EB</sub> =7.5V; I <sub>C</sub> =0                                       |     |      | 0.25        | mA   |
| h <sub>FE-1</sub>     | DC current gain                      | I <sub>C</sub> =1A ; V <sub>CE</sub> =5V                                       | 6   |      | 21          |      |
| h <sub>FE-2</sub>     | DC current gain                      | I <sub>C</sub> =6A ; V <sub>CE</sub> =5V                                       | 5   |      | 9           |      |
| C <sub>C</sub>        | Collector capacitance                | I <sub>E</sub> =0 ; V <sub>CB</sub> =10V; f=1MHz                               |     | 145  |             | pF   |

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PACKAGE OUTLINE

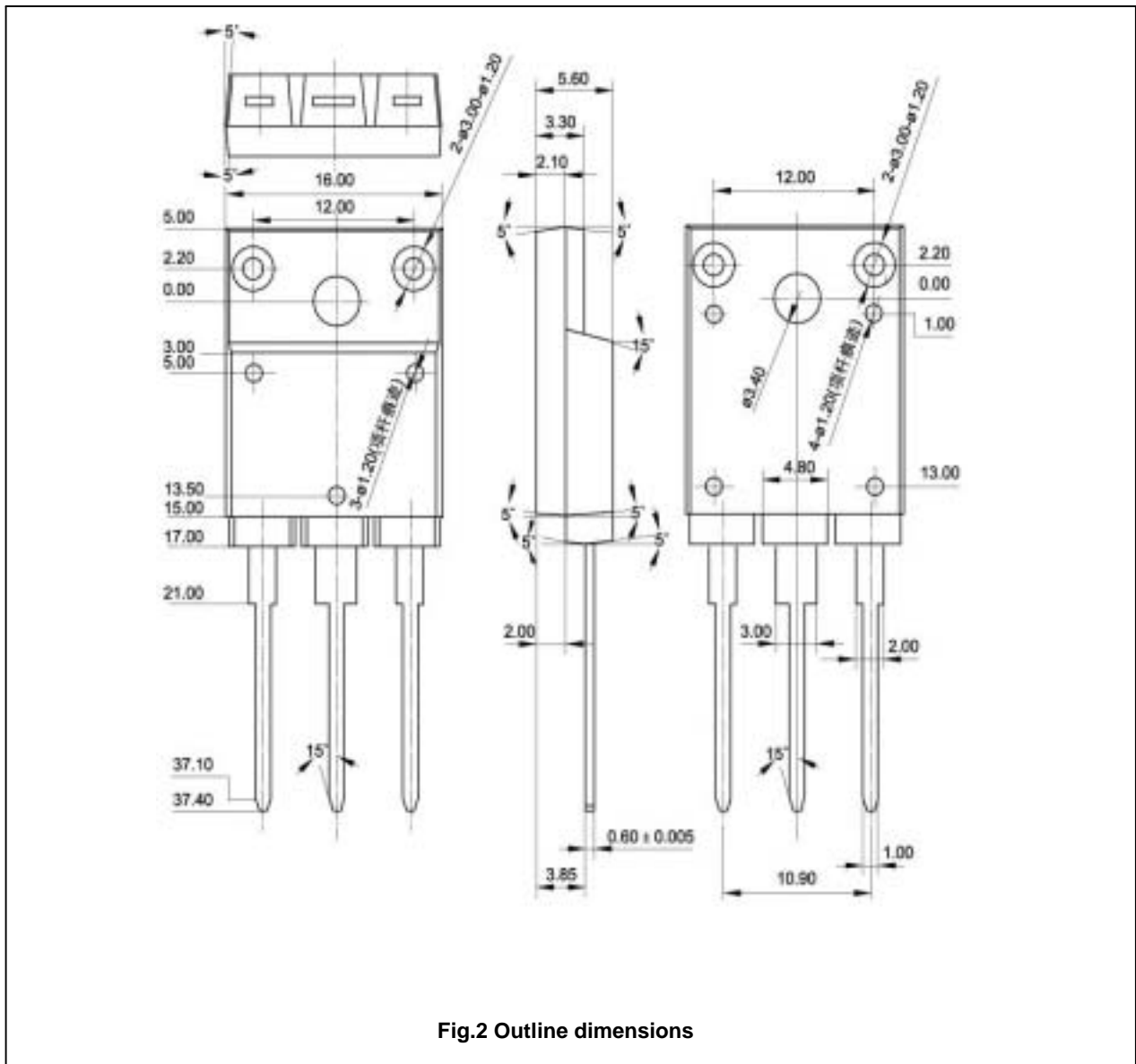


Fig.2 Outline dimensions