

Silicon NPN Power Transistors

BU903

DESCRIPTION

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

APPLICATIONS

- For color TV horizontal deflection circuits.

PINNING

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

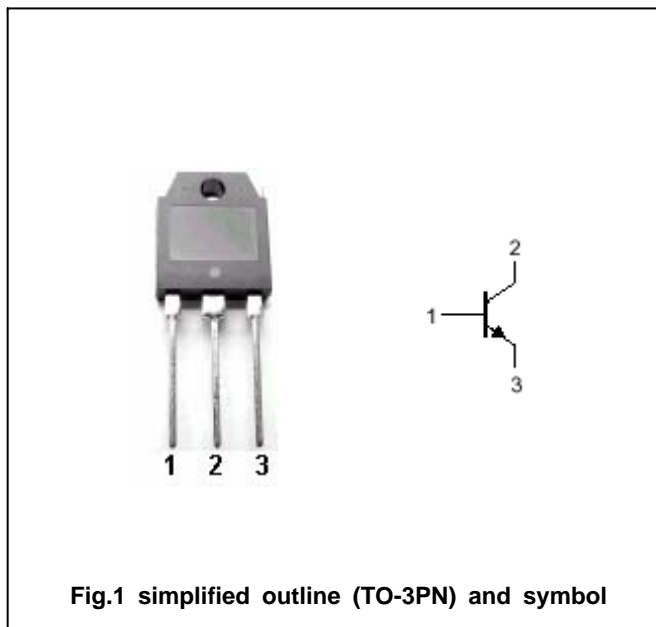


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings (Ta=25 )

| SYMBOL    | PARAMETER                 | CONDITIONS     | VALUE   | UNIT |
|-----------|---------------------------|----------------|---------|------|
| $V_{CBO}$ | Collector-base voltage    | Open emitter   | 1350    | V    |
| $V_{CEO}$ | Collector-emitter voltage | Open base      | 550     | V    |
| $V_{EBO}$ | Emitter-base voltage      | Open collector | 7       | V    |
| $I_C$     | Collector current         |                | 6       | A    |
| $P_T$     | Total power dissipation   | $T_C=25$       | 125     | W    |
| $T_j$     | Junction temperature      |                | 150     |      |
| $T_{stg}$ | Storage temperature       |                | -65~150 |      |

THERMAL CHARACTERISTICS

| SYMBOL        | PARAMETER                        | MAX | UNIT |
|---------------|----------------------------------|-----|------|
| $R_{th\ j-c}$ | Thermal resistance junction case | 1.0 | /W   |

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## CHARACTERISTICS

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

| SYMBOL                | PARAMETER                            | CONDITIONS                                 | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|--|-----|------|-----|------|
| V <sub>CE0(SUS)</sub> | Collector-emitter sustaining voltage | I <sub>C</sub> =100mA; I <sub>B</sub> =0;  | 550 |      |     | V    |
| V <sub>(BR)EBO</sub>  | Emitter-base breakdown voltage       | I <sub>E</sub> =10mA; I <sub>C</sub> =0;   | 7   |      |     | V    |
| V <sub>CEsat</sub>    | Collector-emitter saturation voltage | I <sub>C</sub> =3.2A; I <sub>B</sub> =0.8A |     |      | 2.0 | V    |
| V <sub>BEsat</sub>    | Base-emitter saturation voltage      | I <sub>C</sub> =3.2A; I <sub>B</sub> =0.8A |     |      | 1.3 | V    |
| I <sub>CBO</sub>      | Collector cut-off current            | V <sub>CB</sub> =1300V; I <sub>E</sub> =0  |     |      | 1.0 | mA   |
| I <sub>EBO</sub>      | Emitter cut-off current              | V <sub>EB</sub> =5V; I <sub>C</sub> =0     |     |      | 0.1 | mA   |
| h <sub>FE</sub>       | DC current gain                      | I <sub>C</sub> =1.5A; V <sub>CE</sub> =5V  | 8   |      |     |      |

固电半导体

INCHANGE SEMICONDUCTOR

PACKAGE OUTLINE

