

Silicon NPN Power Transistors

2SD1294

DESCRIPTION

- With TO-3P(I) package
- Wide area of safe operation
- High DC current gain
- Darlington

APPLICATIONS

- Power regulator for line operated TV

PINNING

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

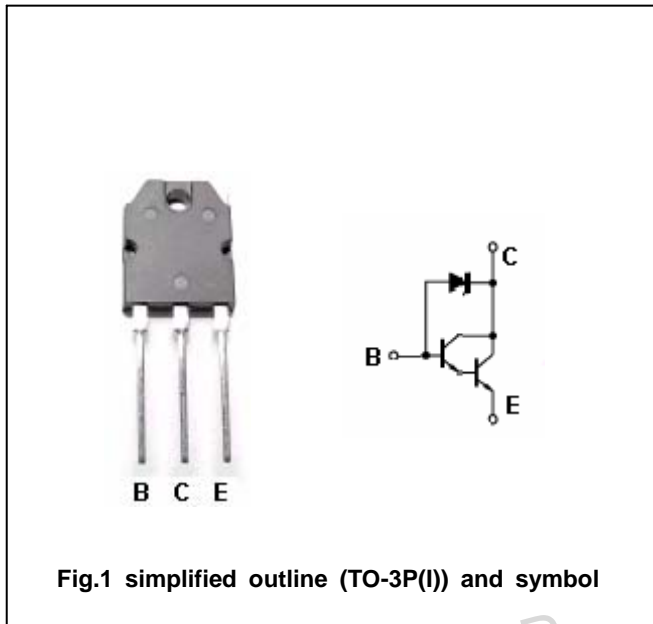


Fig.1 simplified outline (TO-3P(I)) and symbol

Absolute maximum ratings (Ta=25 )

| SYMBOL    | PARAMETER                   | CONDITIONS     | VALUE       | UNIT |
|-----------|-----------------------------|----------------|-------------|------|
| $V_{CBO}$ | Collector-base voltage      | Open emitter   | $60 \pm 15$ | V    |
| $V_{CEO}$ | Collector-emitter voltage   | Open base      | $60 \pm 15$ | V    |
| $V_{EBO}$ | Emitter-base voltage        | Open collector | 6           | V    |
| $I_C$     | Collector current (DC)      |                | 5           | A    |
| $I_{CP}$  | Collector current (Pulse)   |                | 20          | A    |
| $P_C$     | Collector power dissipation | $T_C=25$       | 80          | W    |
| $T_j$     | Junction temperature        |                | 150         |      |
| $T_{stg}$ | 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</sub>     | Collector-emitter breakdown voltage  | I <sub>C</sub> =100mA ; I <sub>B</sub> =0  | 45   |      | 75    | V    |
| V <sub>CBO</sub>     | Collector-base breakdown voltage     | I <sub>C</sub> =100mA ; I <sub>E</sub> =0  | 45   |      | 75    | V    |
| V <sub>CEsat-1</sub> | Collector-emitter saturation voltage | I <sub>C</sub> =0.5A ; I <sub>B</sub> =1mA |      |      | 1.5   | V    |
| V <sub>CEsat-2</sub> | Collector-emitter saturation voltage | I <sub>C</sub> =1A ; I <sub>B</sub> =1mA   |      |      | 2.5   | V    |
| V <sub>BE</sub>      | Base-emitter on voltage              | I <sub>C</sub> =0.5A ; V <sub>CE</sub> =5V |      |      | 1.8   | V    |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =6V ; I <sub>C</sub> =0    |      |      | 0.1   | mA   |
| h <sub>FE</sub>      | DC current gain                      | I <sub>C</sub> =0.5A ; V <sub>CE</sub> =5V | 2000 |      | 20000 |      |

固电半导体  
INCHANGE SEMICONDUCTOR

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PACKAGE OUTLINE

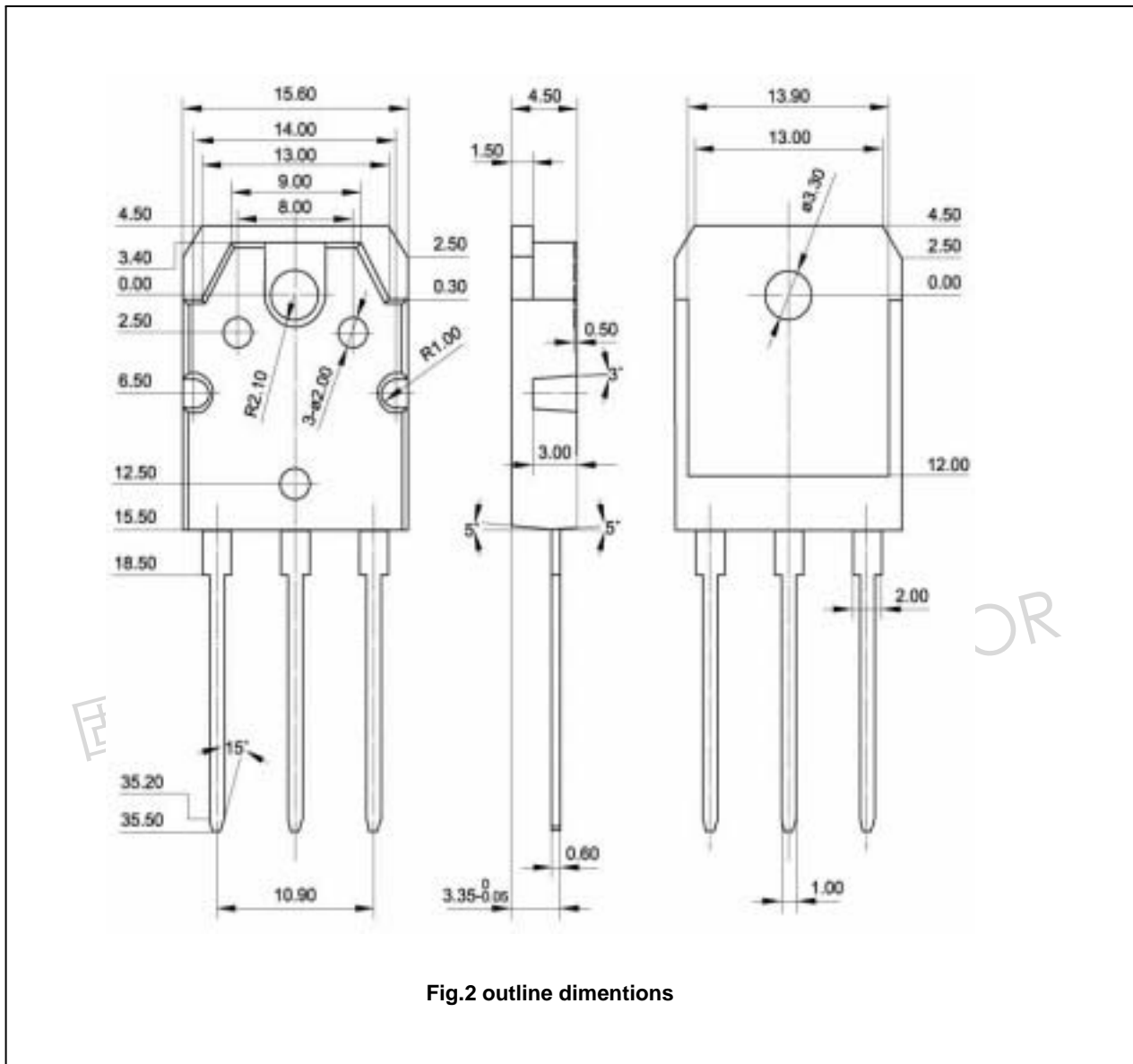


Fig.2 outline dimensions