

## Silicon PNP Power Transistors

2SB656

## DESCRIPTION

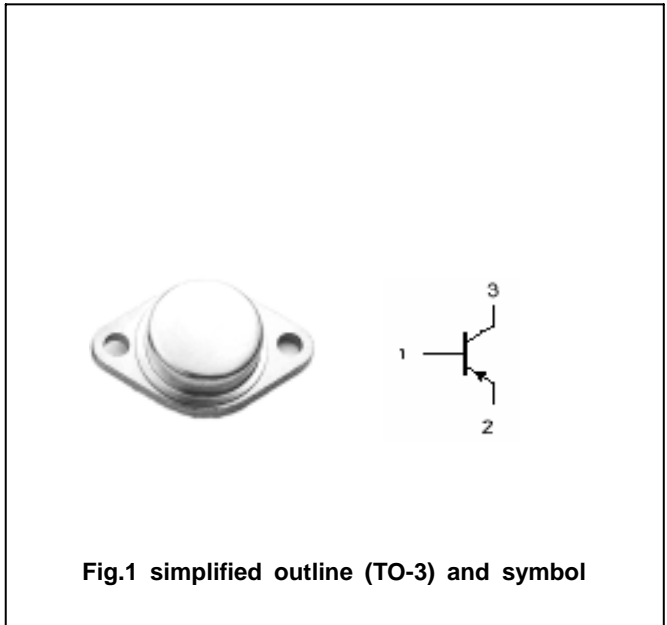
- With TO-3 package
- High power dissipation

## APPLICATIONS

- For use in power amplifier applications

## PINNING(see Fig.2)

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

Absolute maximum ratings( $T_a = 25^\circ\text{C}$ )

| SYMBOL    | PARAMETER                   | CONDITIONS     | VALUE   | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| $V_{CBO}$ | Collector-base voltage      | Open emitter   | -160    | V    |
| $V_{CEO}$ | Collector-emitter voltage   | Open base      | -160    | V    |
| $V_{EBO}$ | Emitter-base voltage        | Open collector | -5      | V    |
| $I_C$     | Collector current           |                | -12     | A    |
| $I_B$     | Base current                |                | -4      | A    |
| $P_C$     | Collector power dissipation | $T_C = 25$     | 125     | 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>(BR)CEO</sub> | Collector-emitter breakdown voltage  | I <sub>C</sub> =-50mA ; I <sub>B</sub> =0   | -160 |      |      | V    |
| V <sub>(BR)CBO</sub> | Collector-base breakdown voltage     | I <sub>C</sub> =-1mA ; I <sub>E</sub> =0    | -160 |      |      | V    |
| V <sub>(BR)EBO</sub> | Emitter-base breakdown voltage       | I <sub>E</sub> =-1mA ; I <sub>C</sub> =0    | -5   |      |      | V    |
| V <sub>CEsat</sub>   | Collector-emitter saturation voltage | I <sub>C</sub> =-10A; I <sub>B</sub> =-1A   |      |      | -3.0 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =-160V; I <sub>E</sub> =0   |      |      | -0.1 | 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> =-1A ; V <sub>CE</sub> =-5V  | 60   |      | 200  |      |
| f <sub>T</sub>       | Transition frequency                 | I <sub>C</sub> =-1A ; V <sub>CE</sub> =-10V |      | 20   |      | MHz  |

◆ h<sub>FE</sub> Classifications

| B      | C       |
|--------|---------|
| 60-120 | 100-200 |

PACKAGE OUTLINE

