

## Silicon PNP Power Transistors

2SA1789

## DESCRIPTION

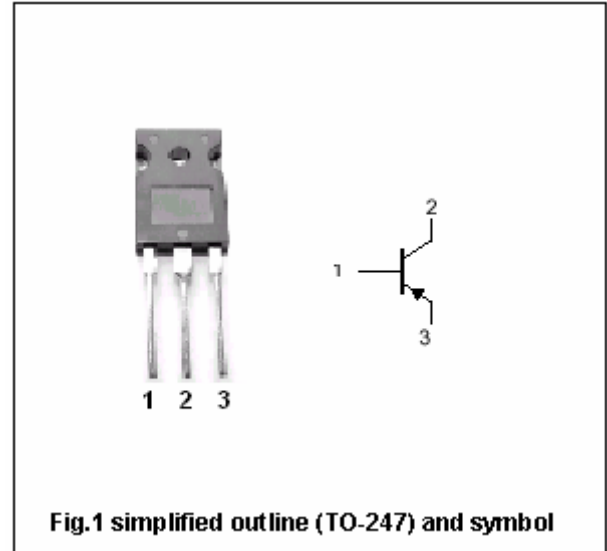
- With TO-247 package
- Complement to type 2SC4653
- Low collector saturation voltage

## APPLICATIONS

- For audio output applications

## PINNING

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

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

| SYMBOL    | PARAMETER                   | CONDITIONS             | VALUE   | UNIT             |
|-----------|-----------------------------|------------------------|---------|------------------|
| $V_{CBO}$ | Collector-base voltage      | Open emitter           | -60     | V                |
| $V_{CEO}$ | Collector-emitter voltage   | Open base              | -60     | V                |
| $V_{EBO}$ | Emitter-base voltage        | Open collector         | -5      | V                |
| $I_C$     | Collector current           |                        | -12     | A                |
| $P_C$     | Collector power dissipation | $T_c=25^\circ\text{C}$ | 80      | W                |
| $T_j$     | Junction temperature        |                        | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage temperature         |                        | -55~150 | $^\circ\text{C}$ |

## Silicon PNP Power Transistors

2SA1789

## 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    | -60 |      |      | V    |
| V <sub>(BR)CBO</sub> | Collector-base breakdown voltage     | I <sub>C</sub> =-1mA; I <sub>E</sub> =0     | -60 |      |      | 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> =-6A; I <sub>B</sub> =-0.6 A |     |      | -0.5 | V    |
| V <sub>BEsat</sub>   | Base-emitter saturation voltage      | I <sub>C</sub> =-6A; I <sub>B</sub> =-0.6 A |     |      | -2.0 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =-60V; I <sub>E</sub> =0    |     |      | -10  | μ A  |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =-5V; I <sub>C</sub> =0     |     |      | -10  | μ A  |
| h <sub>FE</sub>      | DC current gain                      | I <sub>C</sub> =-2A ; V <sub>CE</sub> =-2V  | 60  |      | 320  |      |

◆ h<sub>FE</sub> classifications

| D      | E       | F       |
|--------|---------|---------|
| 60-120 | 100-200 | 160-320 |

Silicon PNP Power Transistors

2SA1789

PACKAGE OUTLINE

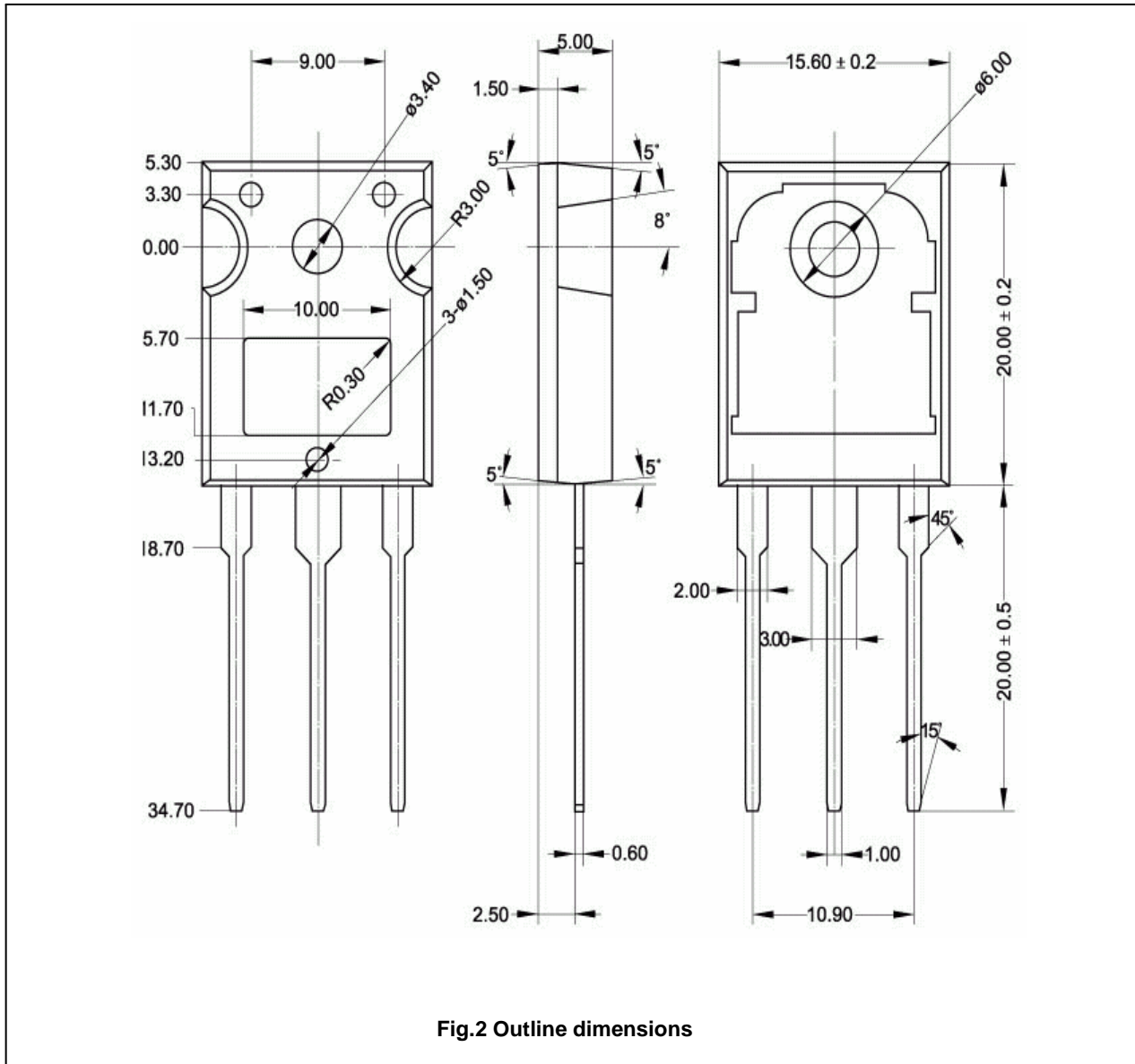


Fig.2 Outline dimensions