

**Silicon NPN Power Transistors**

**2SC2793**

**DESCRIPTION**

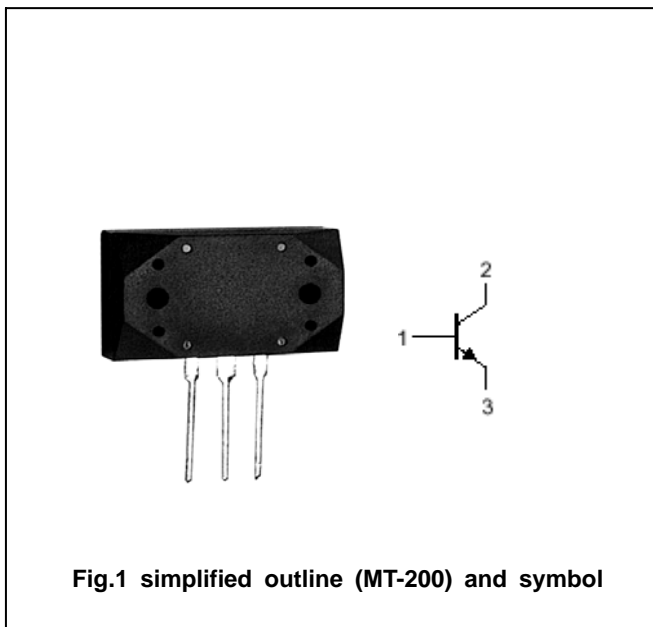
- With MT-200 package
- High collector breakdown voltage
- Excellent switching times

**APPLICATIONS**

- High speed and high voltage switching
- Switching regulator
- High speed DC-DC converter

**PINNING(see Fig.2)**

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



**ABSOLUTE MAXIMUM RATINGS(T<sub>C</sub>=25°C)**

| SYMBOL           | PARAMETER                   | CONDITIONS           | VALUE   | UNIT |
|------------------|-----------------------------|----------------------|---------|------|
| V <sub>CBO</sub> | Collector-base voltage      | Open emitter         | 900     | V    |
| V <sub>CEO</sub> | Collector-emitter voltage   | Open base            | 800     | V    |
| V <sub>EBO</sub> | Emitter-base voltage        | Open collector       | 7       | V    |
| I <sub>C</sub>   | Collector current           |                      | 5       | A    |
| I <sub>CM</sub>  | Collector current-peak      |                      | 7       | A    |
| I <sub>B</sub>   | Base current                |                      | 3       | A    |
| P <sub>C</sub>   | Collector power dissipation | T <sub>C</sub> =25°C | 100     | W    |
| T <sub>j</sub>   | Junction temperature        |                      | 150     | °C   |
| T <sub>stg</sub> | Storage temperature         |                      | -55~150 | °C   |

## Silicon NPN Power Transistors

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## CHARACTERISTICS

 $T_j=25^{\circ}\text{C}$  unless otherwise specified

| SYMBOL        | PARAMETER                            | CONDITIONS                          | MIN | TYP. | MAX | UNIT          |
|---------------|--------------------------------------|-------------------------------------|-----|------|-----|---------------|
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage  | $I_C=10\text{mA}; I_B=0$            | 800 |      |     | V             |
| $V_{(BR)CBO}$ | Collector-base breakdown voltage     | $I_C=1\text{mA}; I_E=0$             | 900 |      |     | V             |
| $V_{CE(sat)}$ | Collector-emitter saturation voltage | $I_C=3\text{A}; I_B=0.6\text{A}$    |     |      | 1.0 | V             |
| $V_{BE(sat)}$ | Base-emitter saturation voltage      | $I_C=3\text{A}; I_B=0.6\text{A}$    |     |      | 1.5 | V             |
| $I_{CBO}$     | Collector cut-off current            | $V_{CB}=800\text{V}; I_E=0$         |     |      | 100 | $\mu\text{A}$ |
| $I_{EBO}$     | Emitter cut-off current              | $V_{EB}=7\text{V}; I_C=0$           |     |      | 1   | mA            |
| $h_{FE-1}$    | DC current gain                      | $I_C=10\text{mA}; V_{CE}=5\text{V}$ | 10  |      |     |               |
| $h_{FE-2}$    | DC current gain                      | $I_C=3\text{A}; V_{CE}=5\text{V}$   | 10  |      |     |               |

## Switching times

|           |              |  |  |  |     |               |
|-----------|--------------|--|--|--|-----|---------------|
| $t_r$     | Rise time    | $V_{CC}=400\text{V}, I_C=3\text{A}, I_{B1}=0.3\text{A}; I_{B2}=-0.8\text{A}$ |  |  | 1.0 | $\mu\text{s}$ |
| $t_{stg}$ | Storage time |  |  |  | 3.5 | $\mu\text{s}$ |
| $t_f$     | Fall time    |  |  |  | 1.0 | $\mu\text{s}$ |

PACKAGE OUTLINE

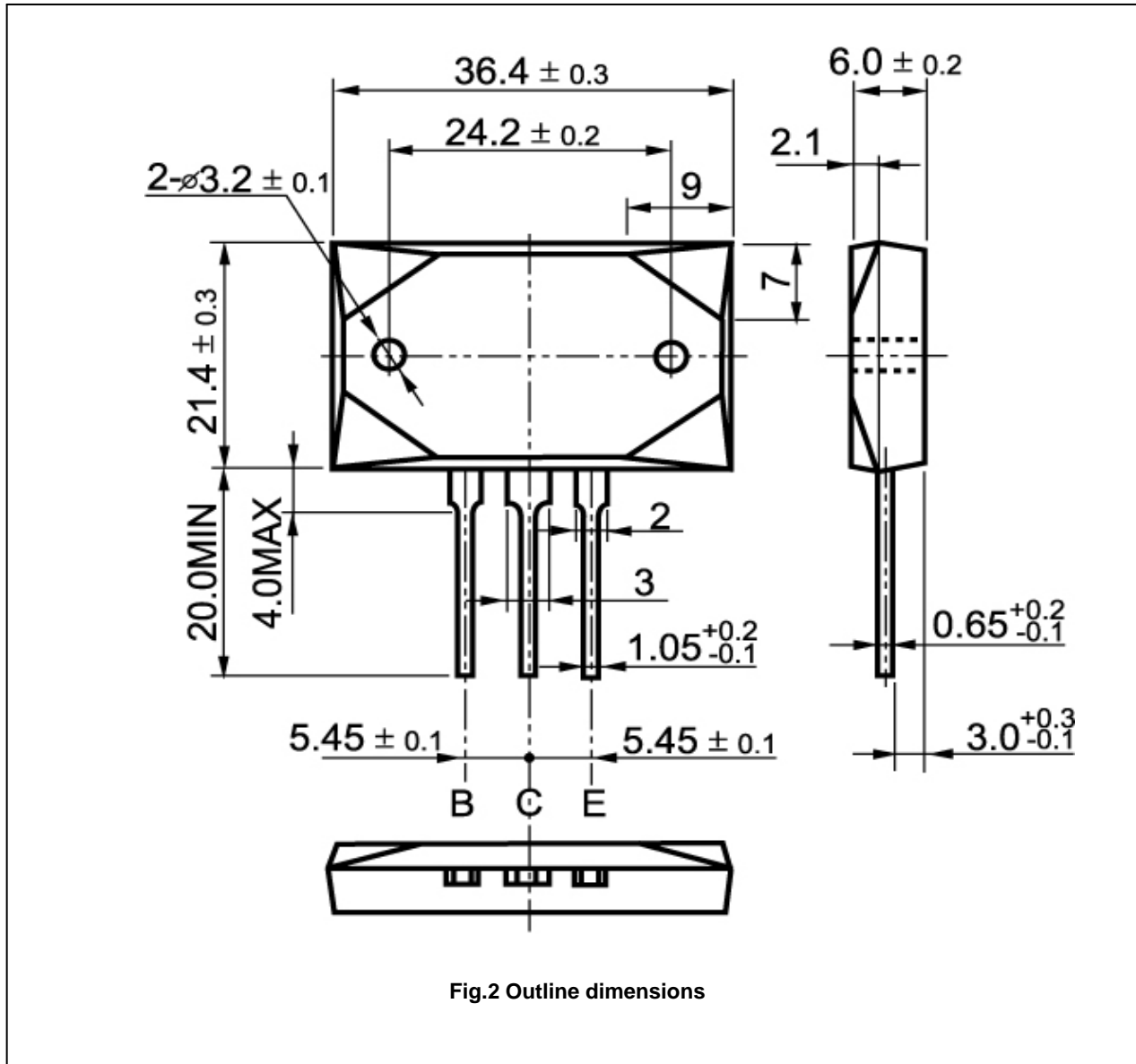


Fig.2 Outline dimensions