

**Silicon NPN Power Transistors**

**2SC1579**

**DESCRIPTION**

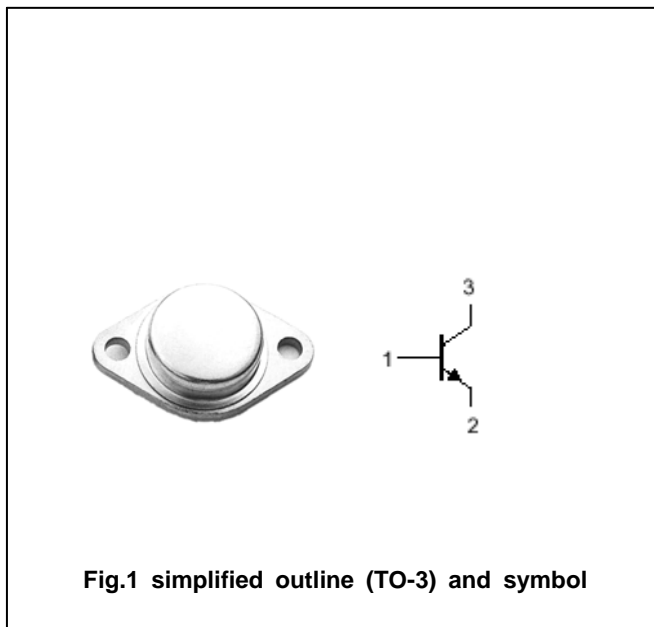
- With TO-3 package
- High voltage ,high speed

**APPLICATIONS**

- Converters
- Inverters
- Switching regulators
- Motor controls

**PINNING (See Fig.2)**

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



**Absolute maximum ratings(Ta=°C)**

| SYMBOL    | PARAMETER                 | CONDITIONS        | MAX     | UNIT |
|-----------|---------------------------|-------------------|---------|------|
| $V_{CBO}$ | Collector-base voltage    | Open emitter      | 500     | V    |
| $V_{CEO}$ | Collector-emitter voltage | Open base         | 400     | V    |
| $V_{EBO}$ | Emitter-base voltage      | Open collector    | 7       | V    |
| $I_C$     | Collector current         |                   | 15      | A    |
| $I_{CM}$  | Collector current-Peak    |                   | 30      | A    |
| $P_T$     | Total power dissipation   | $T_C=25^{\circ}C$ | 150     | W    |
| $T_j$     | Junction temperature      |                   | 200     | °C   |
| $T_{stg}$ | Storage temperature       |                   | -65~200 | °C   |

**THERMAL CHARACTERISTICS**

| SYMBOL         | PARAMETER   | VALUE | UNIT |
|----------------|---|-------|------|
| $R_{th\ j-mb}$ | Thermal resistance from junction to mounting base | 1.0   | °C/W |

## Silicon NPN Power Transistors

## 2SC1579

## 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> =10mA ; I <sub>B</sub> =0    | 400 |      |     | V    |
| V <sub>(BR)EBO</sub> | Emitter-base breakdown voltage       | I <sub>E</sub> =1mA ; I <sub>C</sub> =0     | 7   |      |     | V    |
| V <sub>CEsat</sub>   | Collector-emitter saturation voltage | I <sub>C</sub> =10A; I <sub>B</sub> =2A     |     |      | 1.5 | V    |
| V <sub>BEsat</sub>   | Base-emitter saturation voltage      | I <sub>C</sub> =10A; I <sub>B</sub> =2A     |     |      | 2.0 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =500V; I <sub>E</sub> =0    |     |      | 0.1 | mA   |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =7V; I <sub>C</sub> =0      |     |      | 0.1 | mA   |
| h <sub>FE</sub>      | DC current gain                      | I <sub>C</sub> =5A ; V <sub>CE</sub> =4V    | 10  |      | 25  |      |
| f <sub>T</sub>       | Transition frequency                 | I <sub>C</sub> =0.5A ; V <sub>CE</sub> =10V |     | 5    |     | MHz  |

PACKAGE OUTLINE

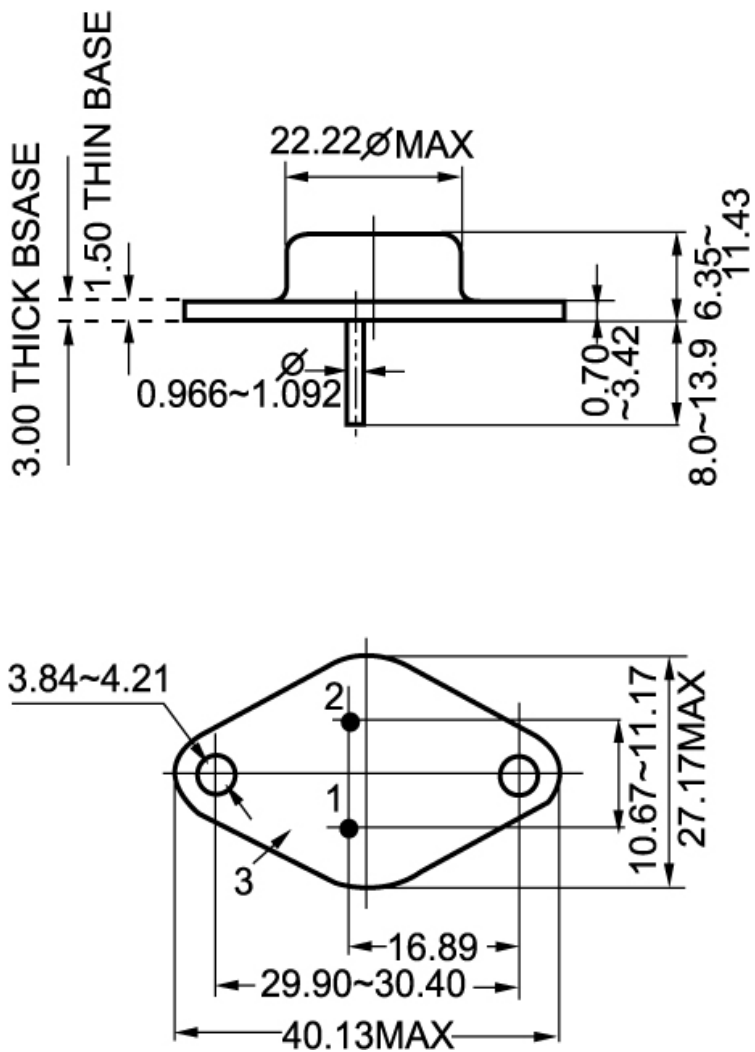


Fig.2 Outline dimensions