

Silicon NPN Power Transistors

2SC4386

DESCRIPTION

- With TO-3PML package
- Complement to type 2SA1671

APPLICATIONS

- Audio and general purpose

PINNING

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

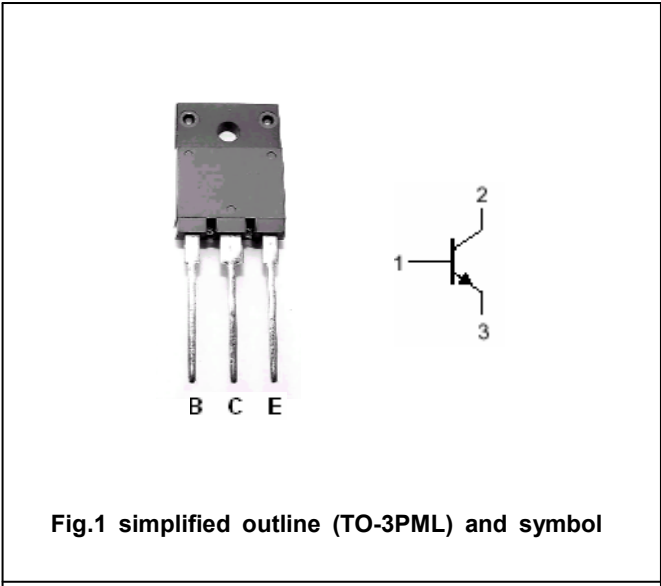


Fig.1 simplified outline (TO-3PML) and symbol

Absolute maximum ratings(Ta=25℃)

| SYMBOL           | PARAMETER                   | CONDITIONS          | VALUE   | UNIT |
|------------------|-----------------------------|---------------------|---------|------|
| V <sub>CBO</sub> | Collector-base voltage      | Open emitter        | 160     | V    |
| V <sub>CEO</sub> | Collector-emitter voltage   | Open base           | 120     | V    |
| V <sub>EBO</sub> | Emitter-base voltage        | Open collector      | 6       | V    |
| I <sub>C</sub>   | Collector current           |                     | 8       | A    |
| I <sub>B</sub>   | Base current                |                     | 4       | A    |
| P <sub>C</sub>   | Collector power dissipation | T <sub>C</sub> =25℃ | 75      | W    |
| T <sub>j</sub>   | Junction temperature        |                     | 150     | ℃    |
| T <sub>stg</sub> | Storage temperature         |                     | -55~150 | ℃    |

**Silicon NPN Power Transistors****2SC4386****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> =50mA; I <sub>B</sub> =0      | 120 |      |     | V    |
| V <sub>(BR)EBO</sub> | Emitter-base breakdown voltage       | I <sub>E</sub> =1mA; I <sub>C</sub> =0       | 6   |      |     | V    |
| V <sub>CEsat</sub>   | Collector-emitter saturation voltage | I <sub>C</sub> =3 A; I <sub>B</sub> =0.3 A   |     |      | 1.5 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =160V; I <sub>E</sub> =0     |     |      | 10  | μA   |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =6V; I <sub>C</sub> =0       |     |      | 10  | μA   |
| h <sub>FE</sub>      | DC current gain                      | I <sub>C</sub> =3A ; V <sub>CE</sub> =4V     | 50  |      | 180 |      |
| f <sub>T</sub>       | Transition frequency                 | I <sub>E</sub> =-0.5A ; V <sub>CE</sub> =12V |     | 20   |     | MHz  |

**◆ h<sub>FE</sub> classifications**

| O      | P      | Y      |
|--------|--------|--------|
| 50-100 | 70-140 | 90-180 |

**2SC4386**

Fig.2 Outline dimensions