

## Silicon NPN Power Transistors

2SC1046

## DESCRIPTION

- With TO-3 package
- High breakdown voltage

## APPLICATIONS

- For CRT horizontal output applications

## PINNING(see fig.2)

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



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

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

| SYMBOL    | PARAMETER                   | CONDITIONS               | VALUE   | UNIT             |
|-----------|-----------------------------|--------------------------|---------|------------------|
| $V_{CBO}$ | Collector-base voltage      | Open emitter             | 1000    | V                |
| $V_{CEO}$ | Collector-emitter voltage   | Open base                | 400     | V                |
| $V_{EBO}$ | Emitter-base voltage        | Open collector           | 6       | V                |
| $I_C$     | Collector current           |                          | 3       | A                |
| $P_C$     | Collector power dissipation | $T_C = 25^\circ\text{C}$ | 25      | W                |
| $T_j$     | Junction temperature        |                          | 125     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage temperature         |                          | -40~125 | $^\circ\text{C}$ |

**Silicon NPN Power Transistors****2SC1046****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> =5mA; I <sub>B</sub> =0    | 400  |      |     | V    |
| V <sub>(BR)CBO</sub> | Collector-base breakdown voltage     | I <sub>C</sub> =1mA; I <sub>E</sub> =0    | 1000 |      |     | 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> =2 A; I <sub>B</sub> =0.4A |      |      | 2.0 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =800V; 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> =2 A ; V <sub>CE</sub> =5V | 4    |      | 20  |      |

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PACKAGE OUTLINE

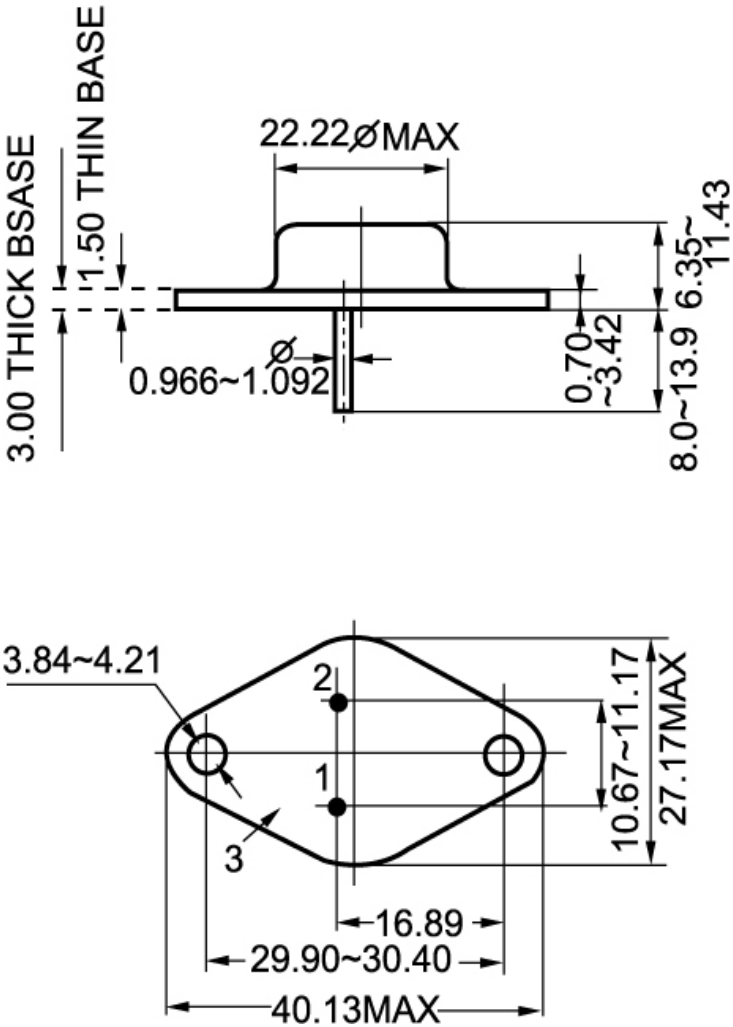


Fig.2 Outline dimensions