

Silicon NPN Power Transistors

2SC1004

DESCRIPTION

- With TO-3 package
- High breakdown voltage

APPLICATIONS

- For use in horizontal deflection output stages for color TV receives.

PINNING(see fig.2)

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

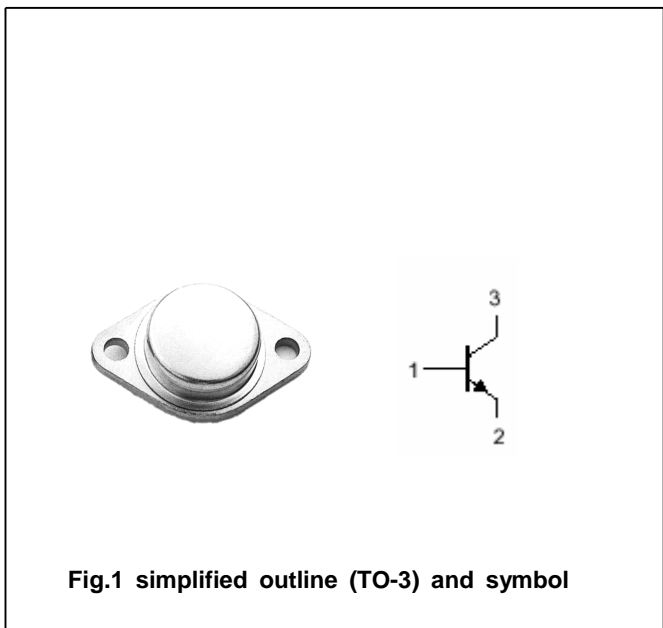


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=?)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|---------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | 1100 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 700 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I_C | Collector current | | 0.5 | A |
| P_T | Total power dissipation | $T_C=25^\circ$ | 50 | W |
| T_j | Junction temperature | | 150 | ° |
| T_{stg} | Storage temperature | | -55~150 | ° |

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CHARACTERISTICS

T_j=25° unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{CEO(SUS)} | Collector-emitter sustaining voltage | I _C =0.1A; I _B =0 | 700 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1mA; I _C =0 | 5 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =150mA; I _B =30mA | | | 5.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =150mA; I _B =30mA | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =800V; I _E =0 | | | 10 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =4V; I _C =0 | | | 10 | μA |
| h _{FE} | DC current gain | I _C =150mA; V _{CE} =15V | 30 | | 160 | |
| f _T | Transition frequency | I _C =150mA; V _{CE} =15V | 2.0 | | | MHz |

PACKAGE OUTLINE

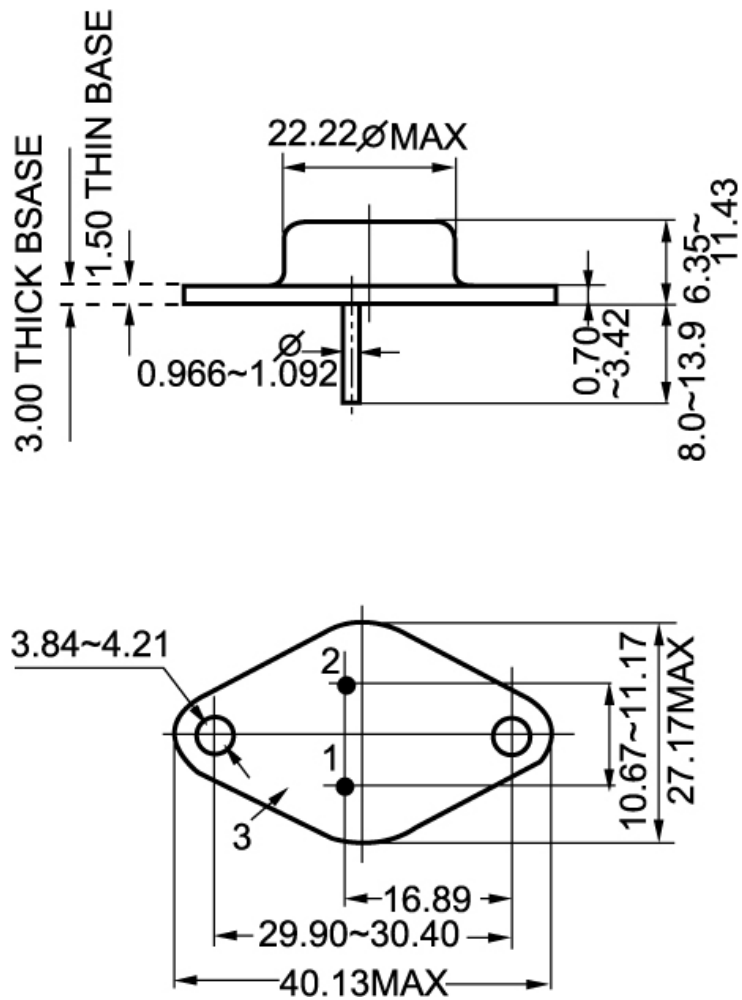


Fig.2 Outline dimensions