

Silicon NPN Power Transistors

2SC1170

DESCRIPTION

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

APPLICATIONS

- Designed for use in large screen color deflection circuits

PINNING(see Fig.2)

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

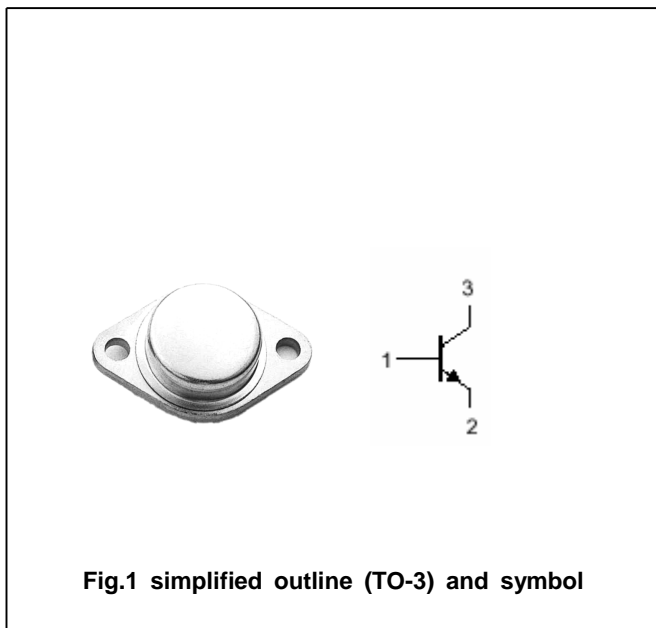


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=?)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | 1200 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 500 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 6 | V |
| I_C | Collector current | | 3.5 | A |
| I_B | Base current | | 1.0 | A |
| P_C | Collector power dissipation | $T_C=25^\circ$ | 50 | W |
| T_j | Junction temperature | | 150 | ? |
| T_{stg} | Storage temperature | | -55~150 | ? |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|--------------|----------------------------------|-----|------|
| $R_{th j-c}$ | Thermal resistance junction case | 2.5 | ? /W |

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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 =100mA ; I _B =0 | 500 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =2.5A; I _B =0.6A | | | 10 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =2.5A; I _B =0.6A | | | 1.2 | V |
| I _{CES} | Collector cut-off current | V _{CE} =1200V; V _{BE} =0 | | | 1.0 | mA |
| I _{CBO} | Collector cut-off current | V _{CB} =800V; I _E =0 | | | 20 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | | | 20 | μA |
| h _{FE-1} | DC current gain | I _C =0.5A ; V _{CE} =10V | 10 | | | |
| h _{FE-2} | DC current gain | I _C =3A ; V _{CE} =10V | 5 | | | |
| f _T | Transition frequency | I _C =0.5A ; V _{CE} =10V | | 4 | | MHz |

PACKAGE OUTLINE

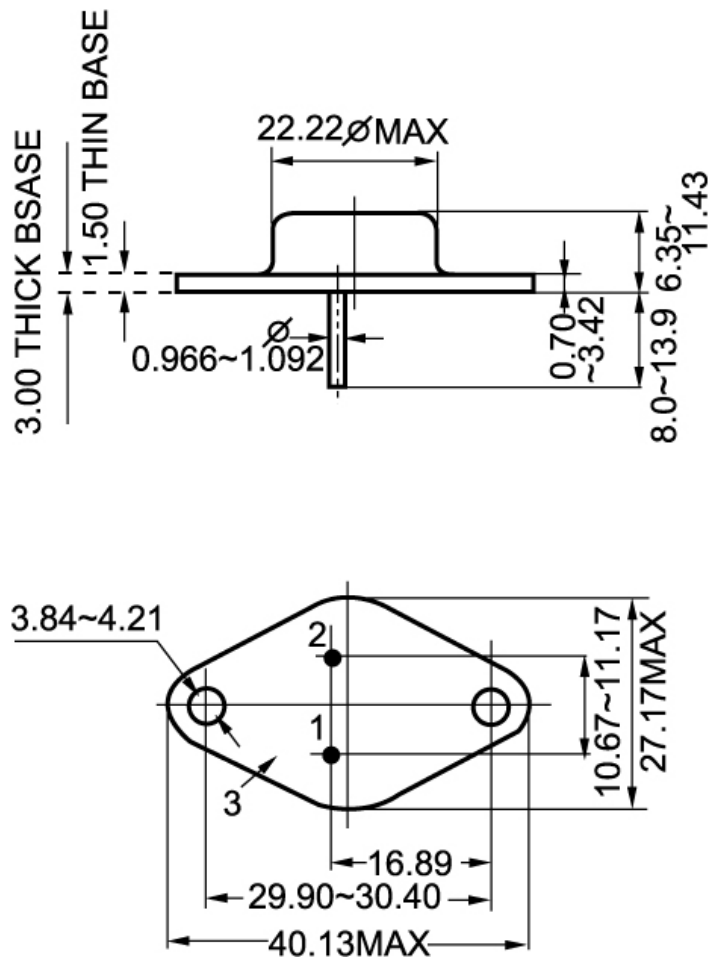


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)