

Silicon NPN Power Transistors

2SC1111

DESCRIPTION

- With TO-3 package
- Wide area of safe operation

APPLICATIONS

- For audio frequency power amplifier applications

PINNING(see Fig.2)

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

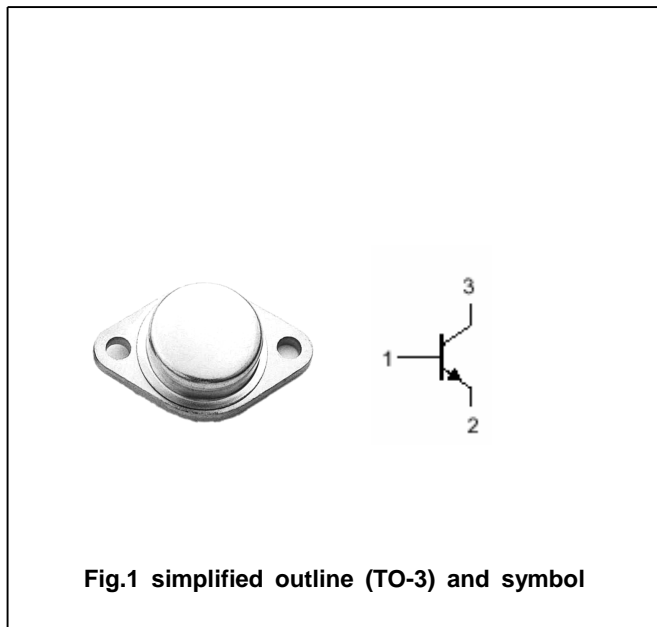


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=?)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | 140 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 80 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I_C | Collector current | | 6 | A |
| P_C | Collector 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 _{(BR)CEO} | Collector-emitter breakdown voltage | I _C =50mA ; I _B =0 | 80 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1mA ; I _C =0 | 5 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =5A; I _B =0.5A | | | 2.0 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =140V; I _E =0 | | | 0.1 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | | | 0.1 | mA |
| h _{FE} | DC current gain | I _C =3A ; V _{CE} =4V | 30 | | 150 | |
| f _T | Transition frequency | I _C =0.5A ; V _{CE} =12V | | 10 | | MHz |
| C _{OB} | Output capacitance | I _E =0 ; V _{CB} =10V, f=1MHz | 115 | | | pF |

PACKAGE OUTLINE

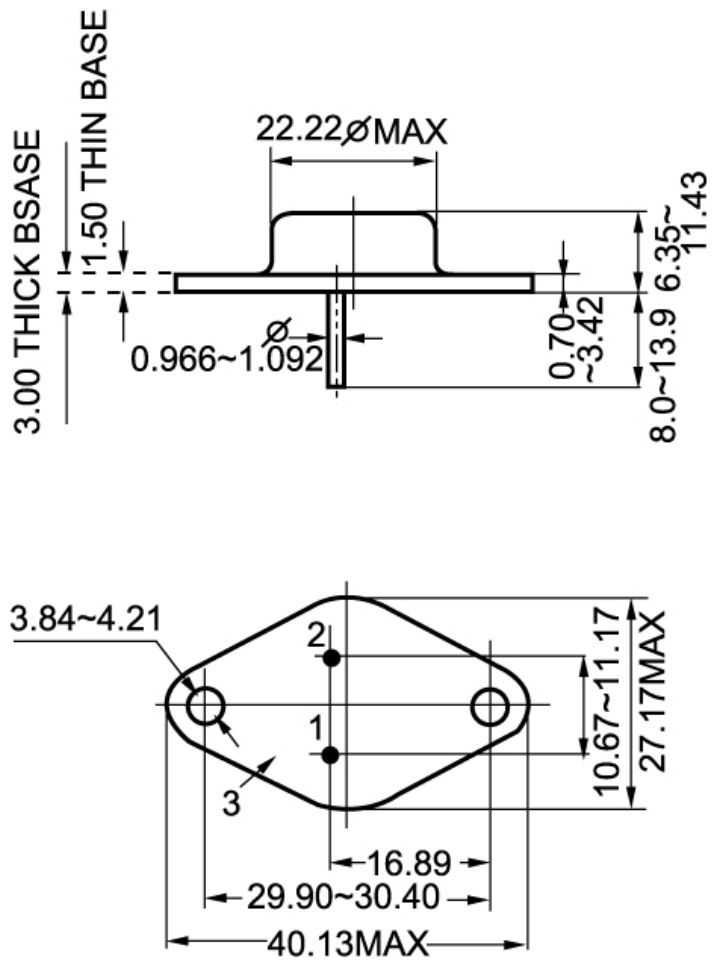


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)