

Silicon NPN Power Transistors

2SC1051

DESCRIPTION

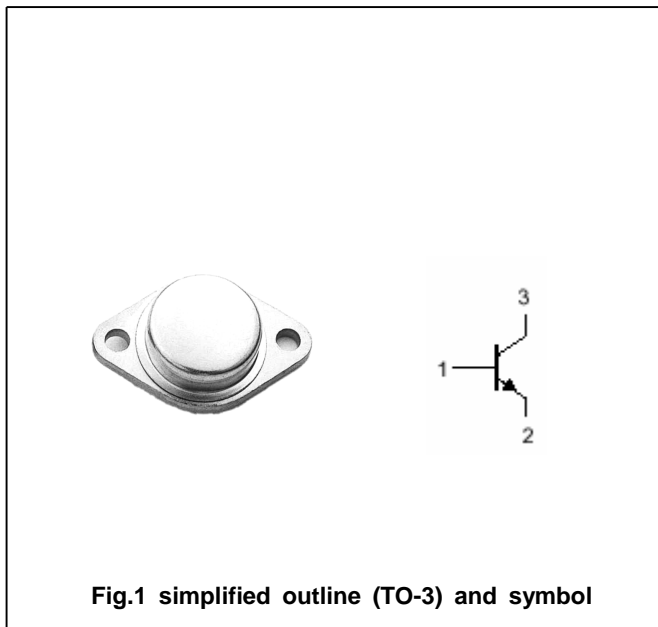
- With TO-3 package
- Wide area of safe operation

APPLICATIONS

- For low frequency power amplifier and large power switching applications

PINNING(see Fig.2)

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



Absolute maximum ratings(Ta=?)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | 150 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 100 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I_C | Collector current | | 7 | A |
| P_C | Collector power dissipation | $T_C=25^\circ$ | 60 | 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 | 100 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =1mA ; I _E =0 | 150 | | | 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 |
| V _{BE} | Base-emitter on voltage | I _C =1A ; V _{CE} =5V | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =150V; 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 =1A ; V _{CE} =5V | 40 | | 320 | |
| f _T | Transition frequency | I _C =0.5A ; V _{CE} =5V | | 8 | | MHz |

U **h_{FE} Classifications**

| C | D | E | F |
|-------|--------|---------|---------|
| 40-80 | 60-120 | 100-200 | 160-320 |

PACKAGE OUTLINE

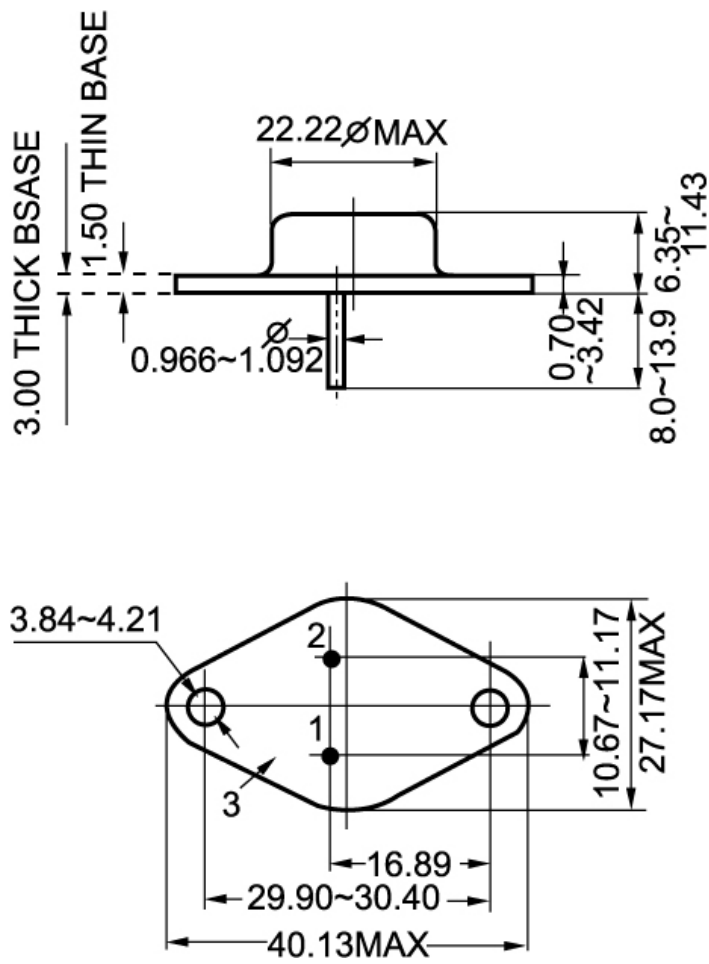


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)