

Silicon NPN Power Transistors

2SC3409

DESCRIPTION

- With TO-3PN package
- High breakdown voltage
- Fast switching speed
- Wide area of safe operation

APPLICATIONS

- For switching regulator applications

PINNING

| PIN | DESCRIPTION |
|-----|--------------------------------------|
| 1 | Base |
| 2 | Collector;connected to mounting base |
| 3 | Emitter |

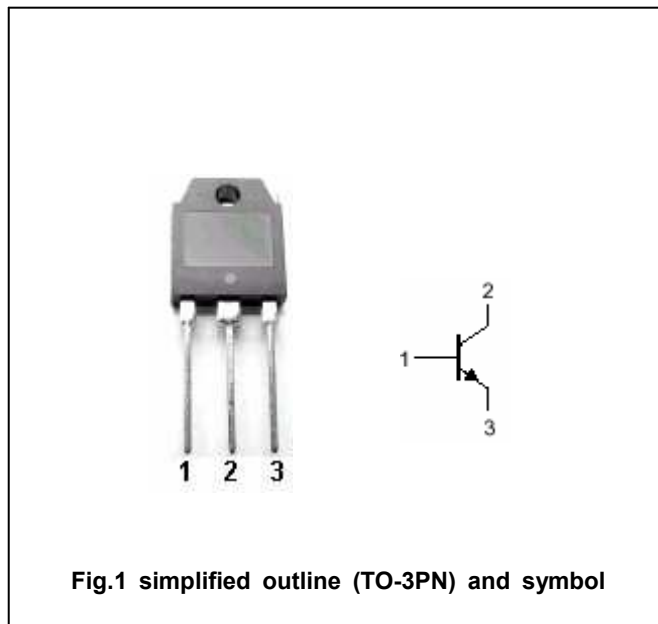


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings (Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|------------------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | 900 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 800 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 10 | V |
| I_C | Collector current | | 2 | A |
| P_C | Collector power dissipation | $T_C=25^\circ\text{C}$ | 80 | W |
| T_j | Junction temperature | | 150 | °C |
| T_{stg} | Storage temperature | | -55~150 | °C |

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{(BR)CEO} | Collector-emitter breakdown voltage | I _C =5mA ; R _{BE} =∞ | 800 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =1mA ; I _E =0 | 900 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1mA ; I _C =0 | 10 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =1.5A ; I _B =0.3A | | | 5.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =1.5A ; I _B =0.3A | | | 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} =5V ; I _C =0 | | | 10 | μA |
| h _{FE} | DC current gain | I _C =0.5A ; V _{CE} =4V | 15 | | | |

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PACKAGE OUTLINE

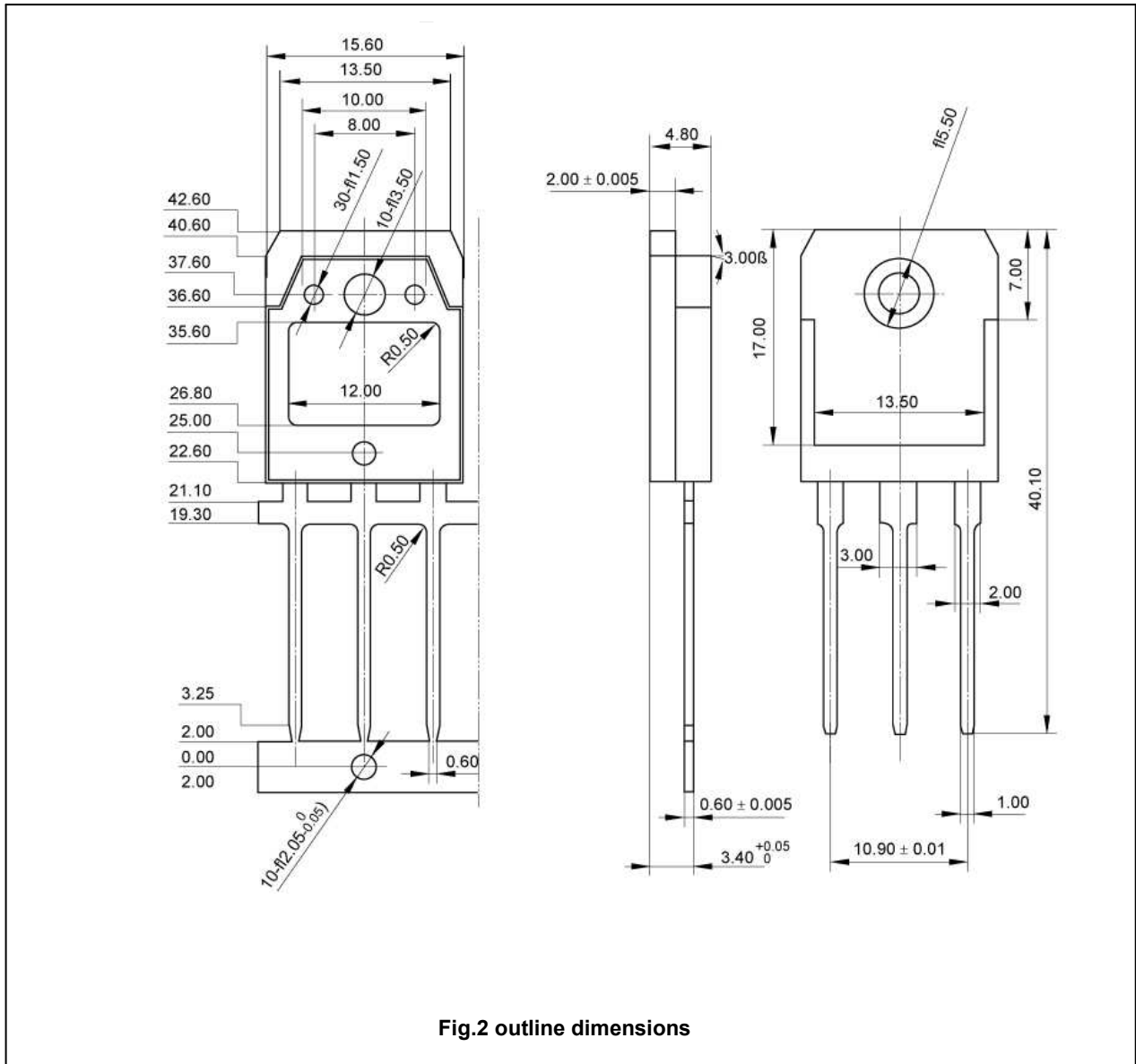


Fig.2 outline dimensions