

Silicon NPN Power Transistors

2SC2749

DESCRIPTION

- With TO-3PN package
- High speed switching
- High V_{CBO}
- Low saturation voltage

APPLICATIONS

- For high voltage,high speed power switching applications

PINNING

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

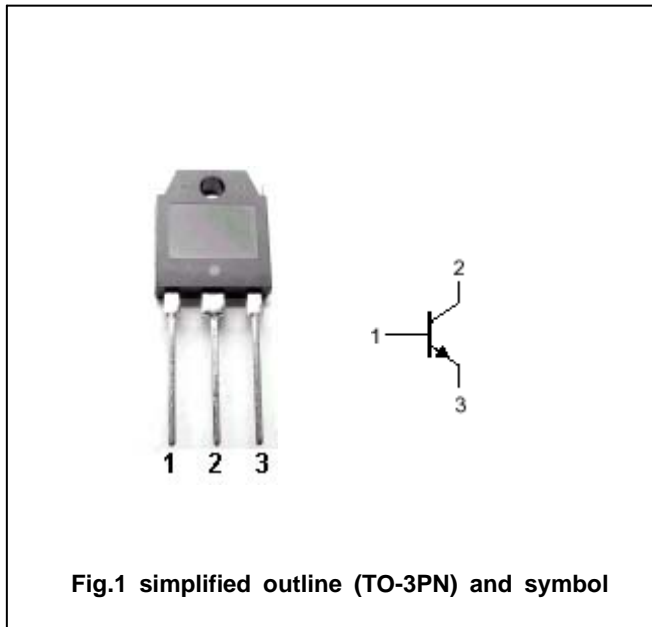


Fig.1 simplified outline (TO-3PN) and symbol

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}C$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|-------------------|---------|-------------|
| V_{CBO} | Collector-base voltage | Open emitter | 500 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 400 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 7 | V |
| I_C | Collector current | | 10 | A |
| I_B | Base current | | 5 | A |
| P_C | Collector power dissipation | $T_C=25^{\circ}C$ | 100 | W |
| T_j | Junction temperature | | 150 | $^{\circ}C$ |
| T_{stg} | Storage temperature | | -55~150 | $^{\circ}C$ |

Silicon NPN Power Transistors

2SC2749

CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{CEQ(SUS)} | Collector-emitter sustaining voltage | I _C =10m A ; I _B =0 | 400 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =1m A ; I _E =0 | 500 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1m A ; I _C =0 | 7 | | | V |
| V _{CE(sat)} | Collector-emitter saturation voltage | I _C =6A; I _B =1.2A | | | 1.0 | V |
| V _{BE(sat)} | Base-emitter saturation voltage | I _C =6A; I _B =1.2A | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =400V I _E =0 | | | 100 | μ A |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | | | 100 | μ A |
| h _{FE-1} | DC current gain | I _C =1A ; V _{CE} =5V | 15 | | 80 | |
| h _{FE-2} | DC current gain | I _C =5A ; V _{CE} =5V | 8 | | | |

Silicon NPN Power Transistors

2SC2749

PACKAGE OUTLINE

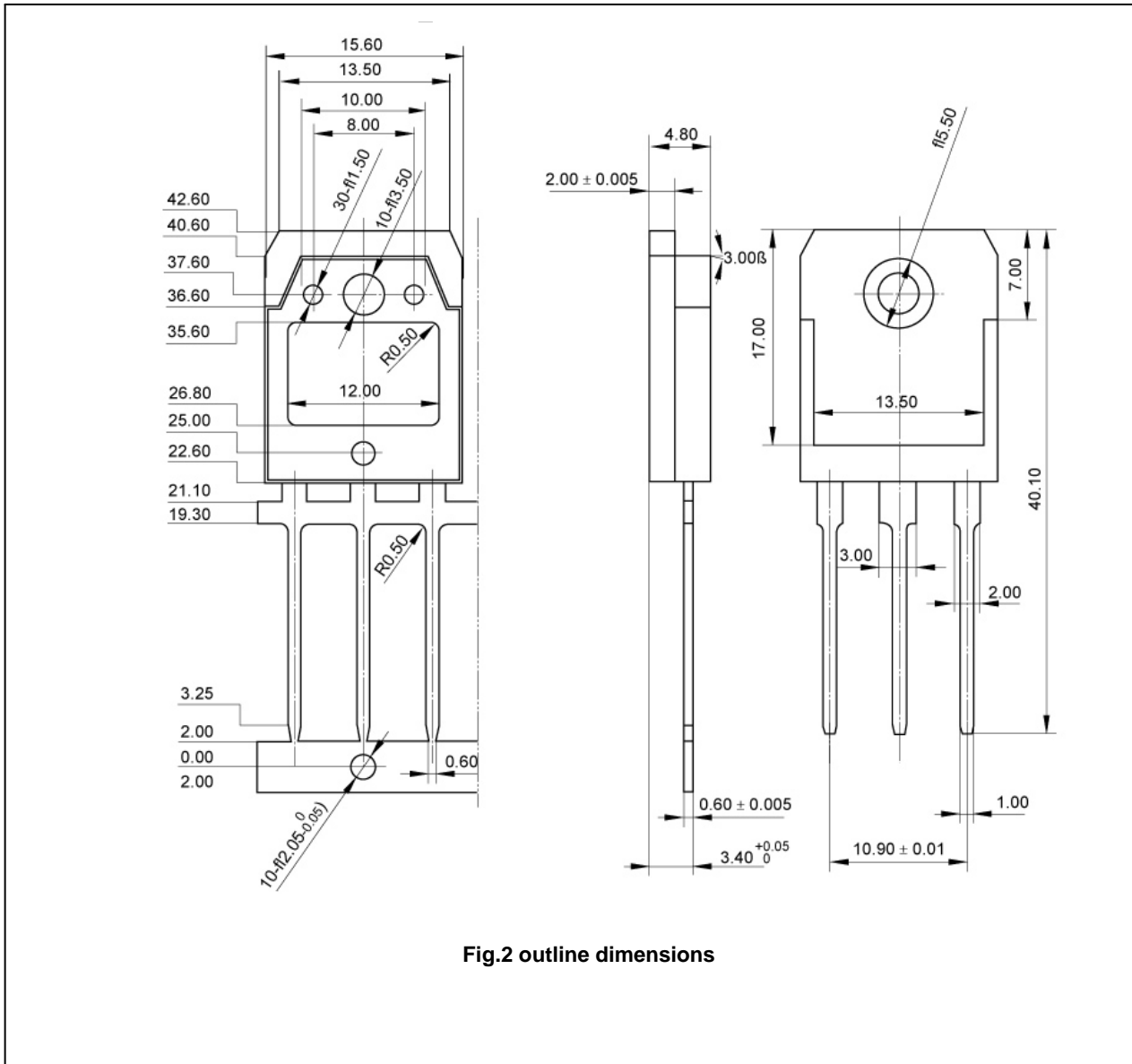


Fig.2 outline dimensions