

Silicon NPN Power Transistors

2SD1243

DESCRIPTION

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

APPLICATIONS

- Audio frequency power amplifier
- High frequency power amplifier

PINNING

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

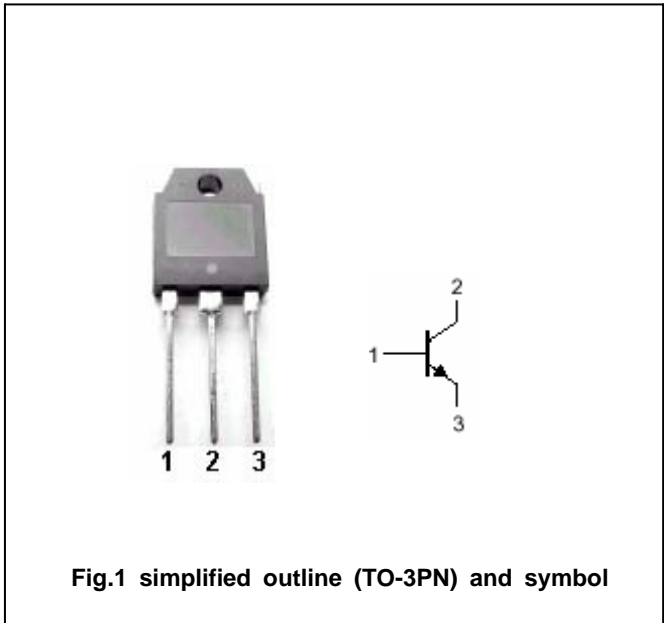


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|------------------------|---------|------------------|
| V_{CBO} | Collector-base voltage | Open emitter | 60 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 60 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I_C | Collector current | | 10 | A |
| I_{CM} | Collector current-peak | | 15 | A |
| P_C | Collector power dissipation | $T_C=25^\circ\text{C}$ | 100 | W |
| T_j | Junction temperature | | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage temperature | | -55~150 | $^\circ\text{C}$ |

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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 =50mA ; I _B =0 | 60 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =1mA ; I _E =0 | 60 | | | 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 | | | 1.5 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =5A ; I _B =0.5A | | | 2.0 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =60V ; I _E =0 | | | 50 | μ A |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V ; I _C =0 | | | 50 | μ A |
| h _{FE} | DC current gain | I _C =3A ; V _{CE} =3V | 50 | | | |

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PACKAGE OUTLINE

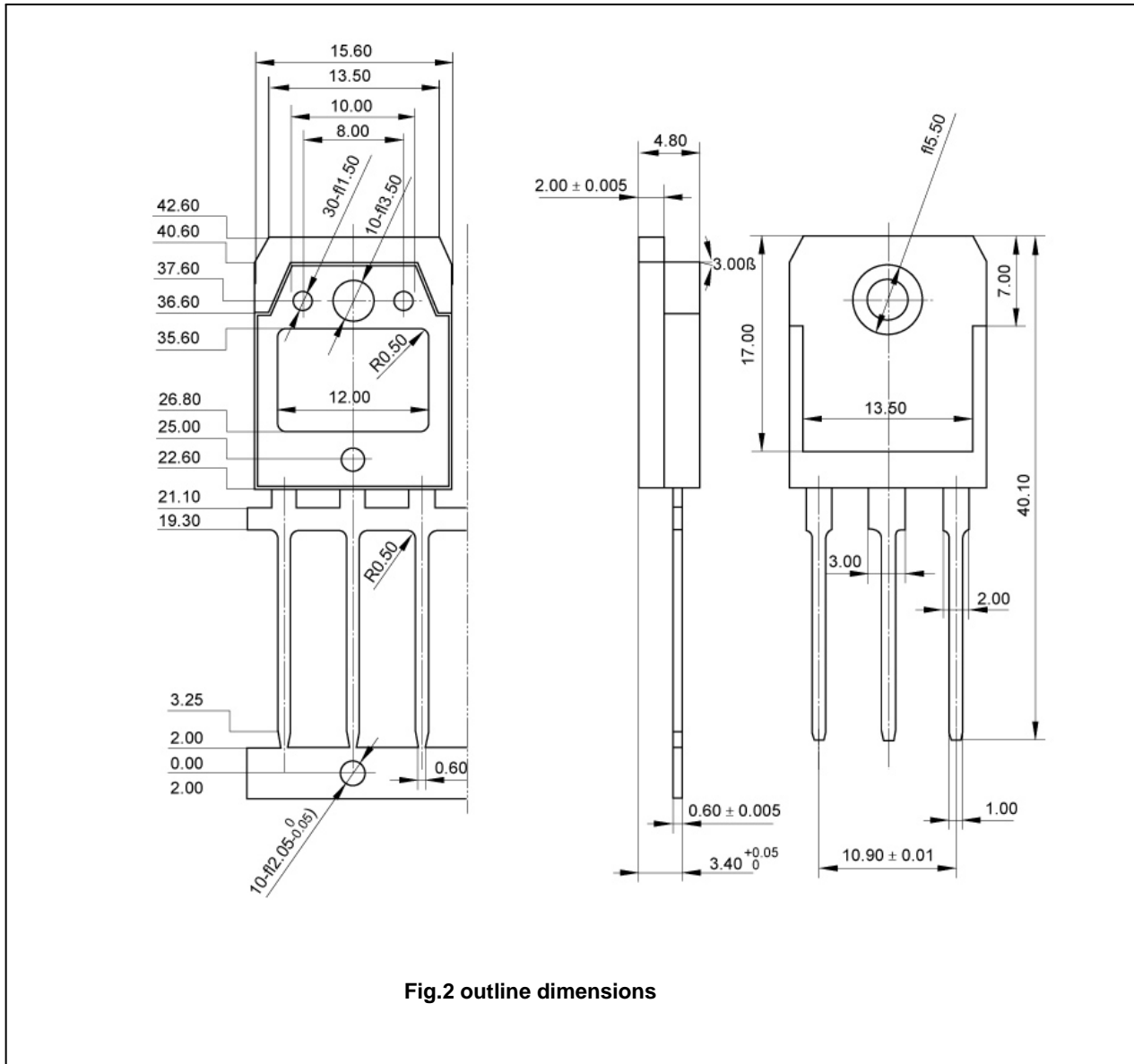


Fig.2 outline dimensions