

Silicon NPN Power Transistors

2SC4276

DESCRIPTION

- With TO-3PN package
- High voltage ,high speed
- Low collector saturation voltage
- High reliability

APPLICATIONS

- Switching regulators
- DC-DC convertor
- Solid state relay
- General purpose power amplifiers

PINNING

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

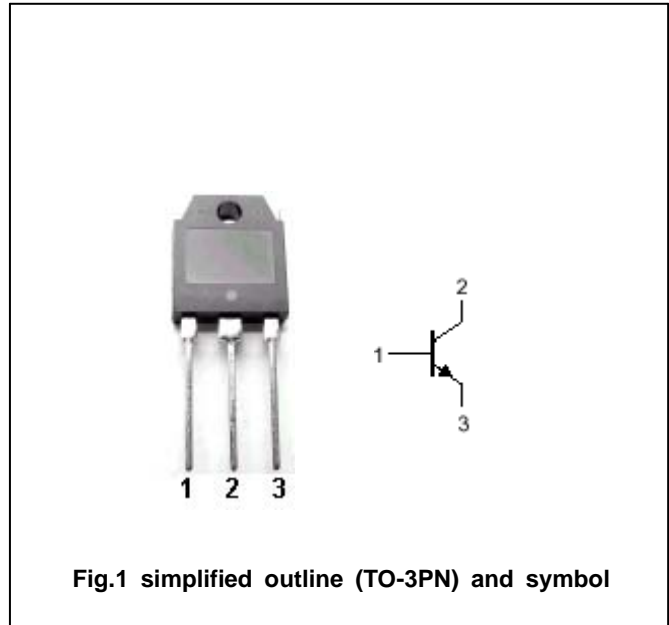


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings(Ta=°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 | 10 | V |
| I _C | Collector current | | 15 | A |
| I _B | Base current | | 5 | A |
| P _C | Collector power dissipation | T _C =25°C | 80 | W |
| T _j | Junction temperature | | 150 | °C |
| T _{stg} | Storage temperature | | -55~150 | °C |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------------|----------------------------------|------|------|
| R _{th j-c} | Thermal resistance junction case | 1.56 | °C/W |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|--|-----|------|-----|------|
| V _{(BR)CEO} | Collector-emitter sustaining voltage | I _C =0.2A ; I _B =0 | 400 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =1mA ; I _E =0 | 500 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1mA ; I _C =0 | 10 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =6A; I _B =1.2A | | | 0.8 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =6A; I _B =1.2A | | | 1.2 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =450V; I _E =0 | | | 100 | μ A |
| I _{EBO} | Emitter cut-off current | V _{EB} =10V; I _C =0 | | | 100 | μ A |
| h _{FE} | DC current gain | I _C =2A ; V _{CE} =5V | 25 | | 65 | |

Switching times

| | | | | | | |
|-----------------|--------------|--|--|--|-----|-----|
| t _{on} | Turn-on time | I _C =7.5A; R _L =20 Ω I _{B1} =0.75A; I _{B2} =-1.5A P _w = 20 μ s; Duty ≤ 2% | | | 1.0 | μ s |
| t _s | Storage time | | | | 2.5 | μ s |
| t _f | Fall time | | | | 0.5 | μ s |

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PACKAGE OUTLINE

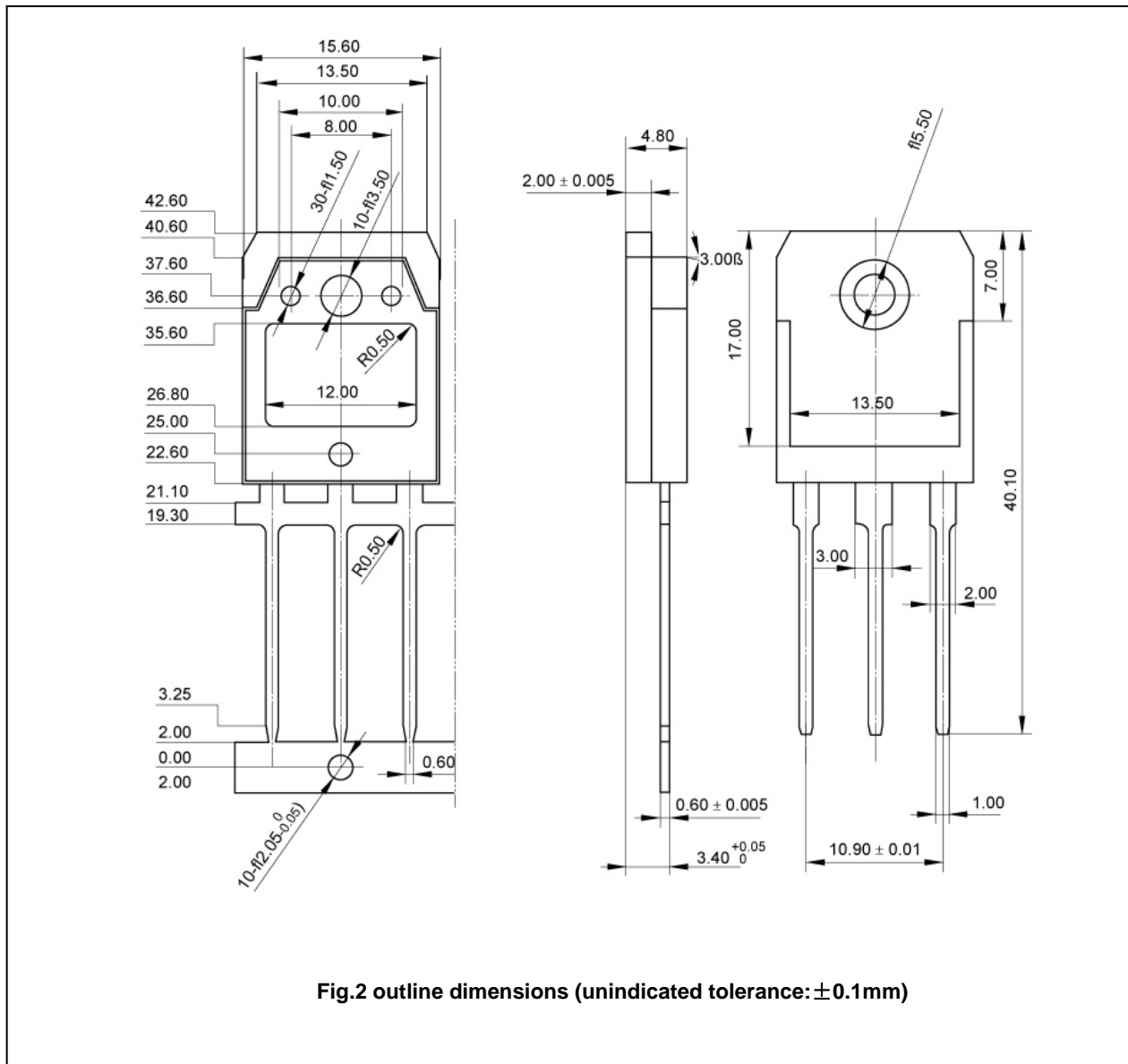


Fig.2 outline dimensions (unindicated tolerance: ±0.1mm)

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