

Silicon NPN Power Transistors

2SC2987

DESCRIPTION

- With TO-3PN package
- Complement to type 2SA1227
- High power dissipation

APPLICATIONS

- For audio frequency power amplifier applications

PINNING

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

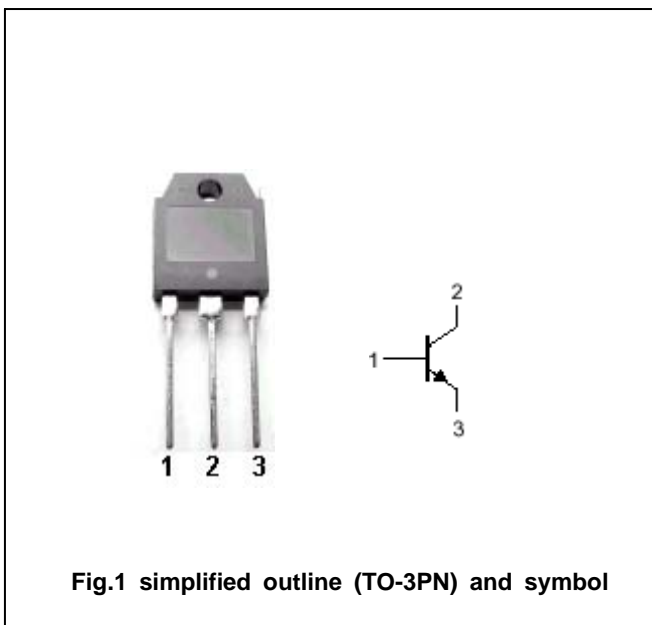


Fig.1 simplified outline (TO-3PN) and symbol

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

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|------------------------|---------|------------------|
| V_{CBO} | Collector-base voltage | Open emitter | 140 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 140 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I_C | Collector current (DC) | | 12 | A |
| I_{CM} | Collector current-peak | | 20 | A |
| P_C | Collector power dissipation | $T_C=25^\circ\text{C}$ | 120 | W |
| T_j | Junction temperature | | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage temperature | | -55~150 | $^\circ\text{C}$ |

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CHARACTERISTICS

 $T_j=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-------------|--------------------------------------|-------------------------------|-----|------|-----|---------|
| V_{CEsat} | Collector-emitter saturation voltage | $I_C=5A ; I_B=0.5A$ | | 0.6 | 1.5 | V |
| V_{BEsat} | Base-emitter saturation voltage | $I_C=5A ; I_B=0.5A$ | | 1.4 | 2.0 | V |
| I_{CBO} | Collector cut-off current | $V_{CB}=140V ; I_E=0$ | | | 50 | μA |
| I_{EBO} | Emitter cut-off current | $V_{EB}=3V ; I_C=0$ | | | 50 | μA |
| h_{FE-1} | DC current gain | $I_C=2A ; V_{CE}=5V$ | 60 | | 320 | |
| h_{FE-2} | DC current gain | $I_C=5A ; V_{CE}=5V$ | 40 | | | |
| f_T | Transition frequency | $I_C=1A ; V_{CE}=5V$ | | 50 | | MHz |
| C_{OB} | Collector output capacitance | $I_E=0 ; f=1MHz ; V_{CB}=10V$ | | 190 | | pF |

◆ h_{FE-1} Classifications

| R | Q | P |
|--------|---------|---------|
| 60-120 | 100-200 | 160-320 |

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PACKAGE OUTLINE

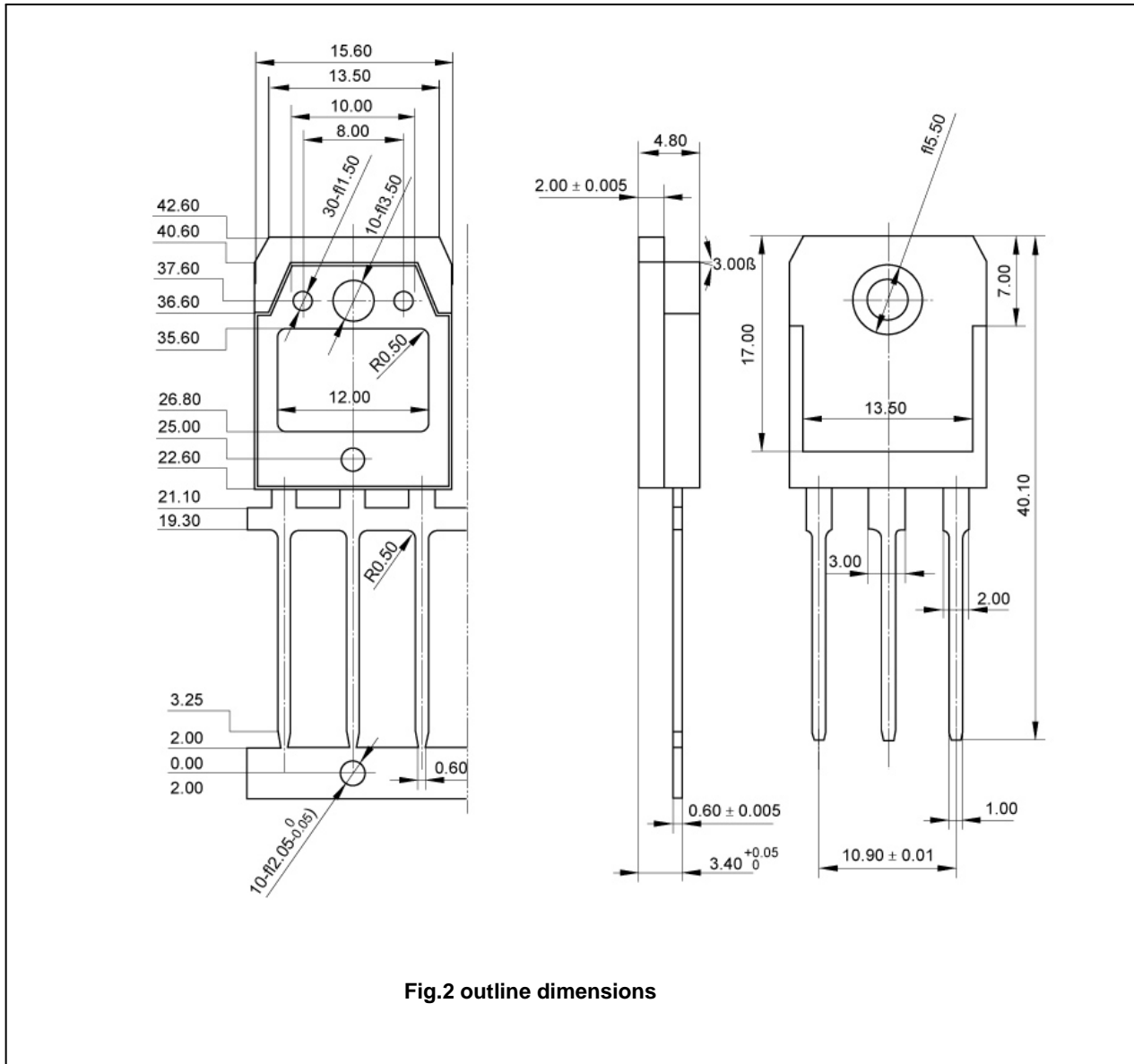


Fig.2 outline dimensions