

Silicon NPN Power Transistors

2SC2626

DESCRIPTION

- With TO-3PN package
- High voltage,high speed switching
- High reliability

APPLICATIONS

- Switching regulators
- Ultrasonic generators
- High frequency inverters
- General purpose power amplifiers

PINNING

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

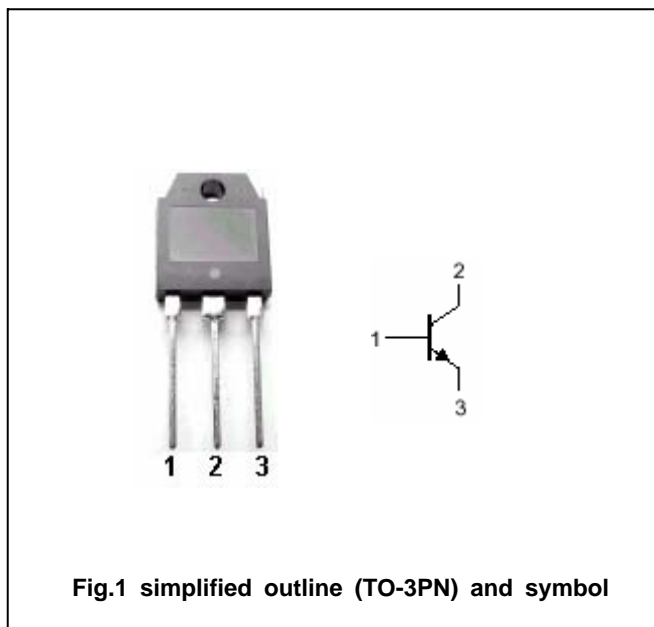


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings (Tc=25)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | 400 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 300 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 7 | V |
| I_C | Collector current | | 15 | A |
| I_B | Base current | | 5 | A |
| P_C | Collector power dissipation | $T_C=25$ | 80 | W |
| T_j | Junction temperature | | 150 | |
| T_{stg} | Storage temperature | | -55~150 | |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|-------------------------------------|------|------|
| $R_{th\ j-C}$ | Thermal resistance junction to case | 1.55 | /W |

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CHARACTERISTICS

T_j=25 unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{(BR)CEO} | Collector-emitter breakdown voltage | I _C =10mA ; I _B =0 | 300 | | | V |
| V _{CEO(SUS)} | Collector-emitter sustaining voltage | I _C =1A ; I _B =0 | 300 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =1mA ; I _E =0 | 400 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =0.1mA ; I _C =0 | 7 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =6A ; I _B =1.2A | | | 1.2 | V |
| V _{BEsat} | Emitter-base saturation voltage | I _C =6A ; I _B =1.2A | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =400V ; I _E =0 | | | 1.0 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =7V ; I _C =0 | | | 0.1 | mA |
| h _{FE} | DC current gain | I _C =6A ; V _{CE} =5V | 10 | | | |

Switching times

| | | | | | | |
|-----------------|--------------|--|--|--|-----|-----|
| t _{on} | Turn-on time | I _C =10A I _{B1} =-I _{B2} =2A R _L =20 Ω , Pw=20 μ s Duty 2% | | | 0.8 | μ s |
| t _s | Storage time | | | | 2.0 | μ s |
| t _f | Fall time | | | | 0.8 | μ s |

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PACKAGE OUTLINE

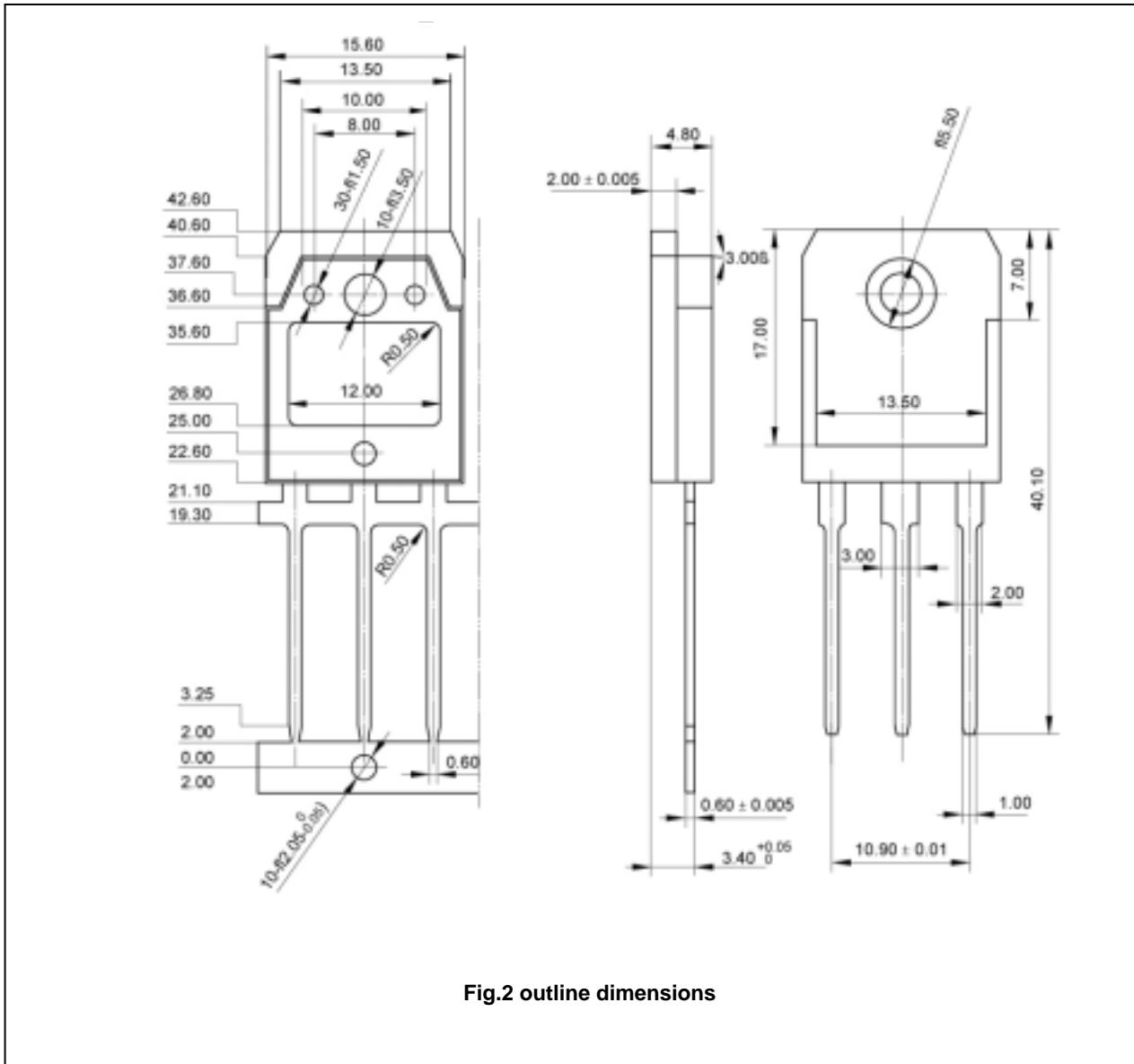


Fig.2 outline dimensions

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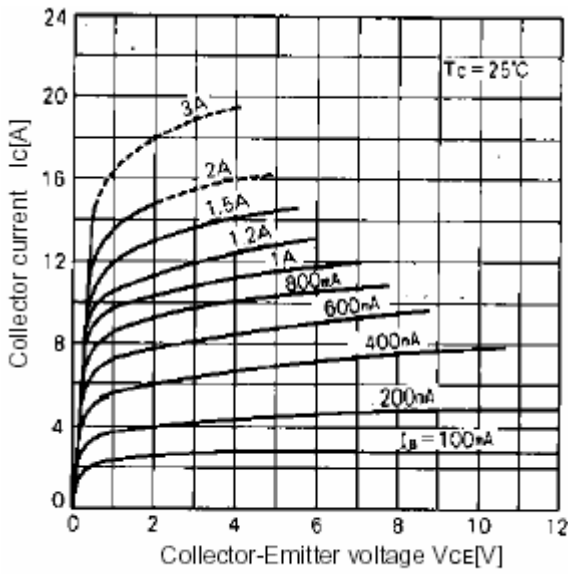


Fig.3 Static Characteristic

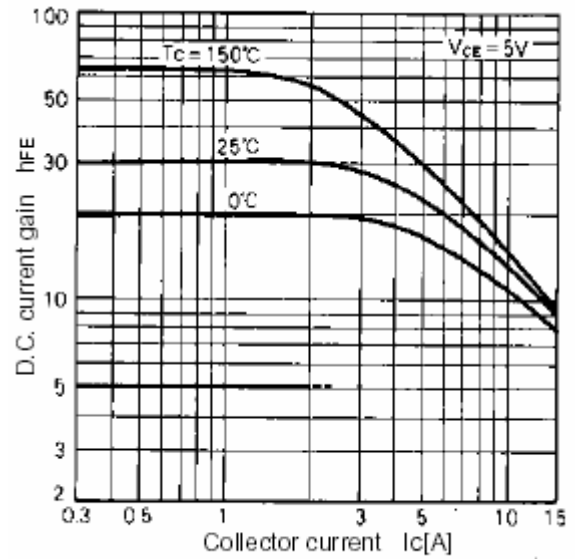


Fig.4 DC current Gain

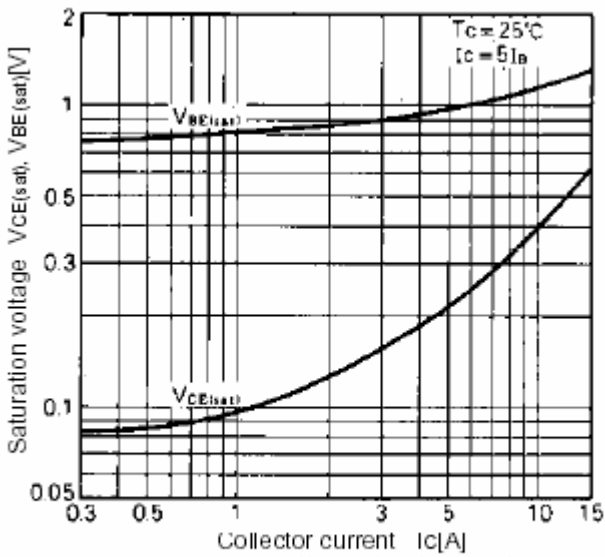


Fig.5 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

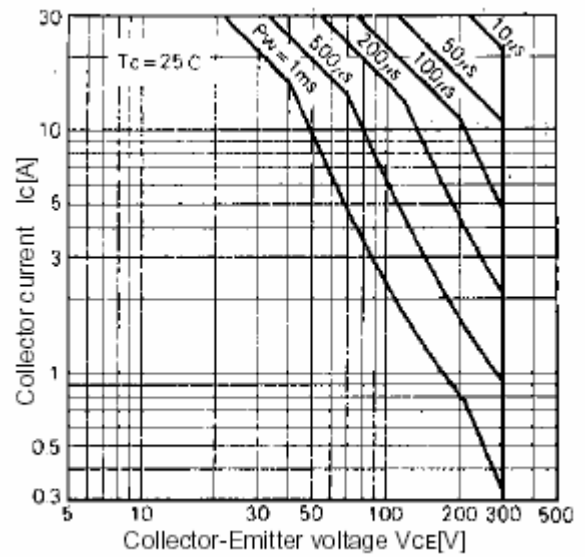


Fig.6 Safe Operating Area