

Silicon NPN Power Transistors

2SC1061

DESCRIPTION

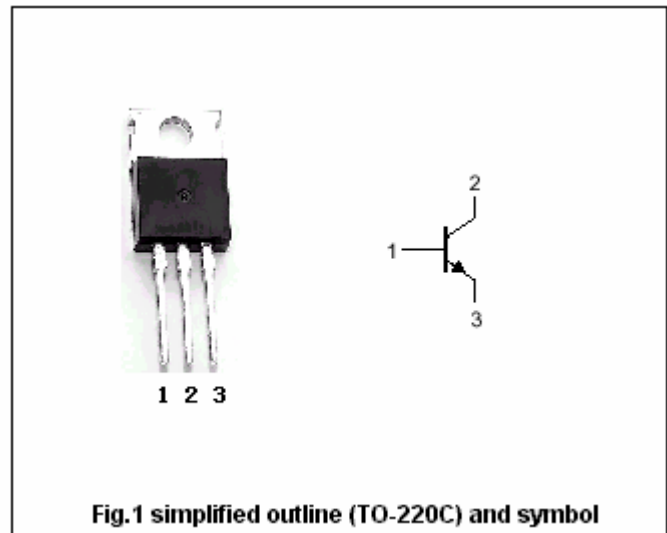
- With TO-220 package
- Low saturation voltage
- Complement to type 2SA671
- Note: type 2SC1060 with short pin

APPLICATIONS

- For use in low frequency power amplifier applications

PINNING

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



Absolute maximum ratings (Ta=25?)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | 50 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 50 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 4 | V |
| I_C | Collector current (DC) | | 3 | A |
| I_{CM} | Collector current-peak | | 8 | A |
| I_B | Base current (DC) | | 0.5 | A |
| P_C | Collector power dissipation | $T_C=25?$ | 25 | W |
| T_j | Junction temperature | | 150 | ? |
| T_{stg} | Storage temperature | | -55~150 | ? |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|--|-----|------|
| $R_{th\ j-a}$ | Thermal resistance from junction to case | 5.0 | ? /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 =50mA ; I _B =0 | 50 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =5mA ; I _E =0 | 50 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =5mA ; I _C =0 | 4 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =2A; I _B =0.2A | | | 1.0 | V |
| V _{BE} | Base-emitter on voltage | I _C =1A ; V _{CE} =4V | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =25V; I _E =0 | | | 0.1 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =4V; I _C =0 | | | 0.1 | mA |
| h _{FE-1} | DC current gain | I _C =0.1A ; V _{CE} =4V | 35 | | | |
| h _{FE-2} | DC current gain | I _C =1A ; V _{CE} =4V | 35 | | 320 | |
| f _T | Transition frequency | I _C =0.5A ; V _{CE} =4V | 5.0 | | | MHz |

U h_{FE-2} classifications

| A | B | C | D |
|-------|--------|---------|---------|
| 35-70 | 60-120 | 100-200 | 160-320 |

PACKAGE OUTLINE

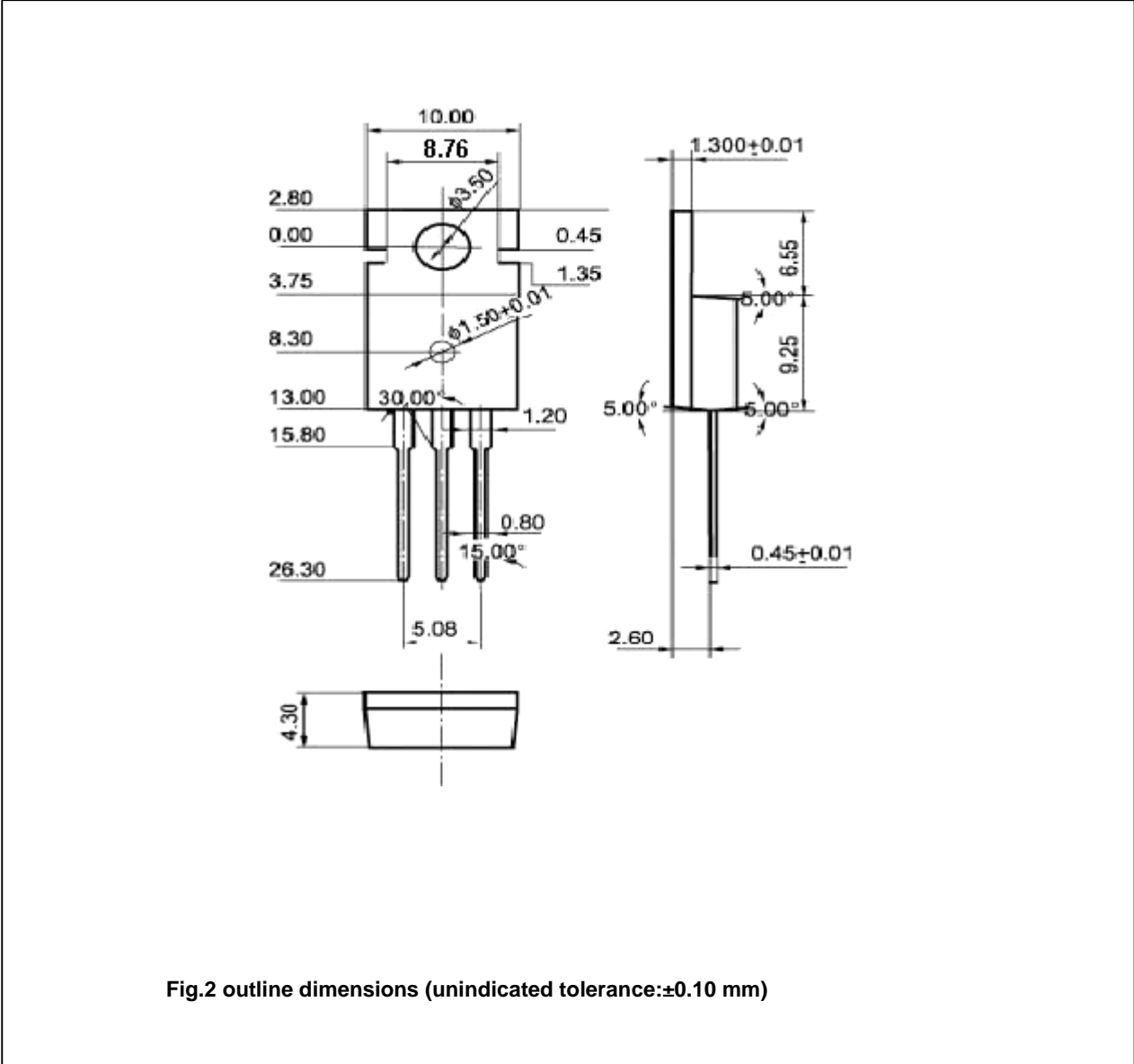


Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)

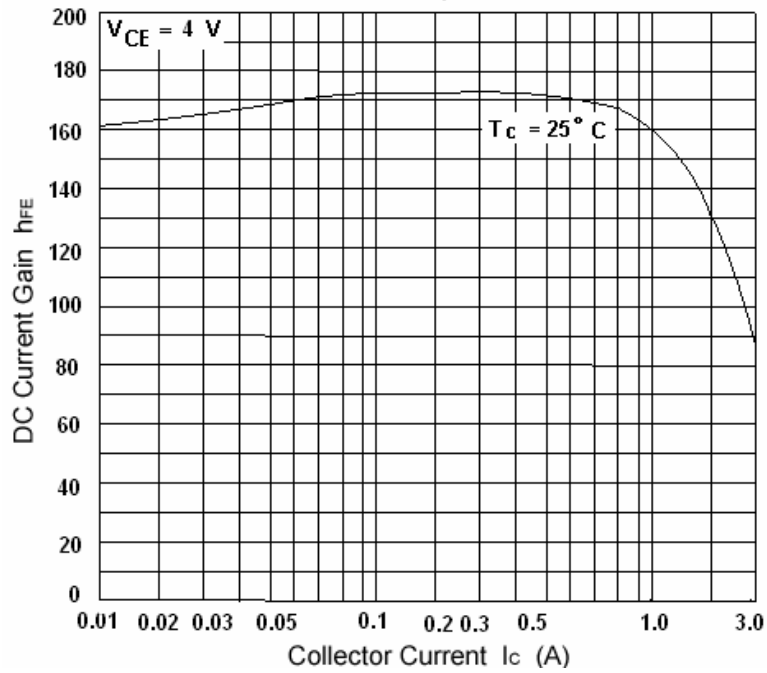


Fig.3 DC current Gain

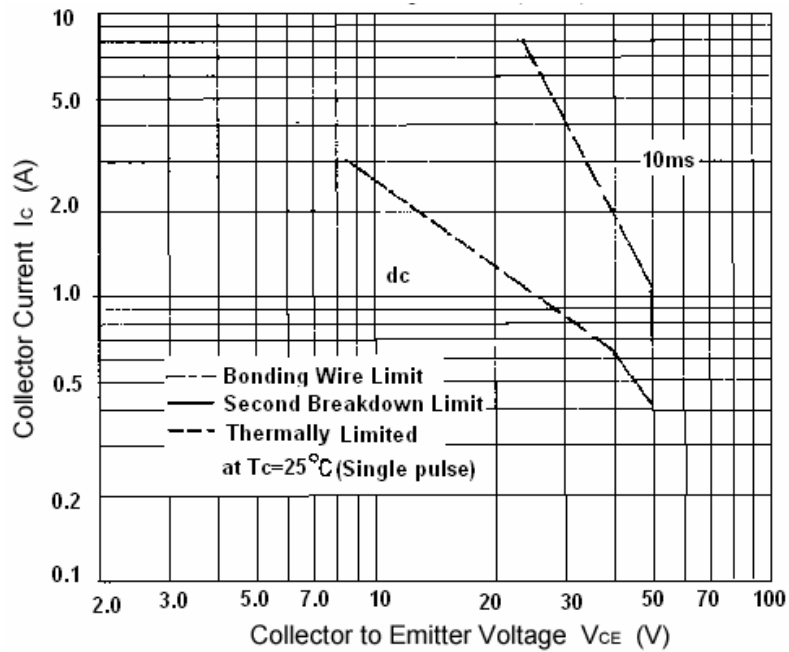


Fig.4 Safe Operating Area