

Silicon NPN Power Transistors

2SD1761

DESCRIPTION

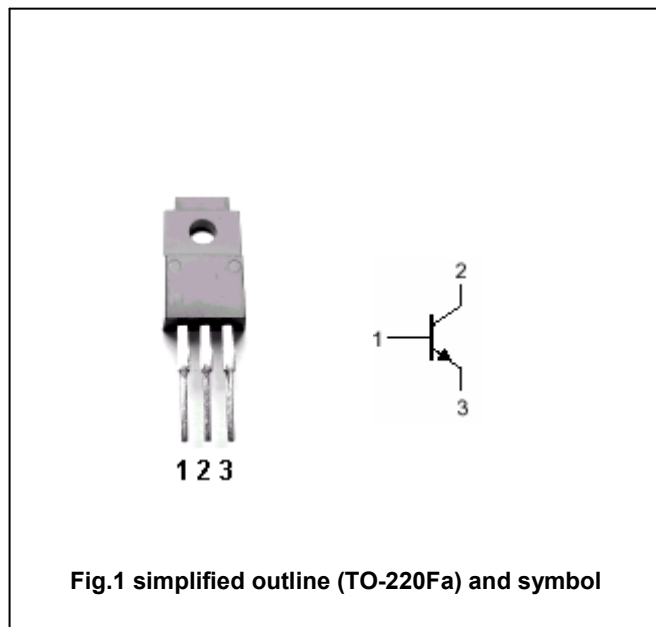
- With TO-220Fa package
- Low collector saturation voltage
- Complement to type 2SB1187
- Wide safe operating area

APPLICATIONS

- For low frequency power amplifier applications

PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Base |
| 2 | Collector |
| 3 | Emitter |



Absolute maximum ratings(Ta=25□)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-----------------------------|---------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | 80 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 60 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I _C | Collector current (DC) | | 3 | A |
| I _{CM} | Collector current-Peak | | 6 | A |
| P _C | Collector power dissipation | T _C =25□ | 30 | W |
| | | T _a =25□ | 2 | |
| T _j | Junction temperature | | 150 | □ |
| T _{stg} | Storage temperature | | -55~150 | □ |

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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 =1mA, I _B =0 | 60 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =50μA, I _E =0 | 80 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =50μA, I _C =0 | 5 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =2A I _B =0.2A | | | 1.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =2A I _B =0.2A | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =60V I _E =0 | | | 10 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =4V; I _C =0 | | | 10 | μA |
| h _{FE} | DC current gain | I _C =0.5A; V _{CE} =5V | 60 | | 320 | |
| f _T | Transition frequency | I _C =0.5A; V _{CE} =5V | | 8 | | MHz |
| C _{ob} | Output capacitance | I _E =0; V _{CB} =10V, f=1MHz | | 90 | | pF |

◆ h_{FE} Classifications

| D | E | F |
|--------|---------|---------|
| 60-120 | 100-200 | 160-320 |

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PACKAGE OUTLINE

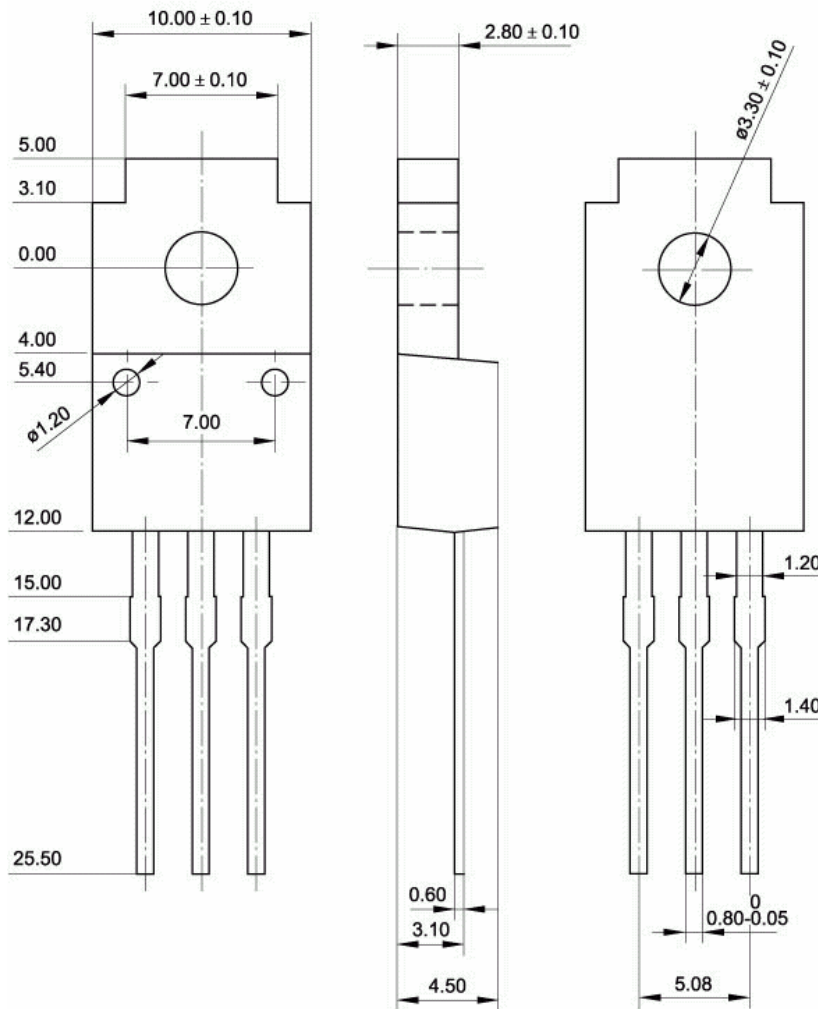


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)