

Silicon PNP Power Transistors

2SB1052

DESCRIPTION

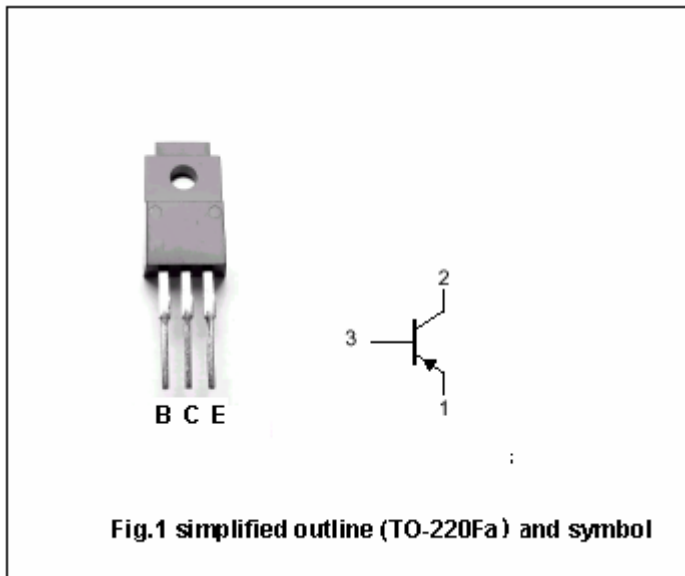
- With TO-220Fa package
- Complement to type 2SD1480
- Low collector saturation voltage

APPLICATIONS

- For power amplifier applications

PINNING

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



Absolute maximum ratings(Ta=25℃)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-----------------------------|---------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | -60 | V |
| V _{CEO} | Collector -emitter voltage | Open base | -60 | V |
| V _{EBO} | Emitter-base voltage | Open collector | -6 | V |
| I _C | Collector current | | -2 | A |
| I _{CM} | Collector current-peak | | -4 | A |
| P _C | Collector power dissipation | T _a =25℃ | 2.0 | W |
| | | T _C =25℃ | 25 | |
| T _j | Junction temperature | | 150 | ℃ |
| T _{stg} | Storage temperature | | -55~150 | ℃ |

Silicon PNP Power Transistors

2SB1052

CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|--|-----|------|------|------|
| V _{(BR)CEO} | Collector-emitter breakdown voltage | I _C =-30mA; I _B =0 | -60 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-2A ; I _B =-0.2A | | | -2.0 | V |
| V _{BE} | Base-emitter on voltage | I _C =-1A ; V _{CE} =-4V | | | -1.2 | V |
| I _{CES} | Collector cut-off current | V _{CE} =-60V; V _{BE} =0 | | | -0.2 | mA |
| I _{CEO} | Collector cut-off current | V _{CE} =-30V; I _B =0 | | | -0.3 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-6V; I _C =0 | | | -1.0 | 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 | 40 | | 250 | |

Switching times

| | | | | | | |
|------------------|--------------|--|--|-----|--|----|
| t _{on} | Turn-on time | I _C =-1A ; I _{B1} =-I _{B2} =-0.1A | | 0.1 | | μs |
| t _{stg} | Storage time | | | 1.5 | | μs |
| t _f | Fall time | | | 0.3 | | μs |

◆ h_{FE-2} Classifications

| R | Q | P |
|-------|--------|---------|
| 40-90 | 70-150 | 120-250 |

Silicon PNP Power Transistors

2SB1052

PACKAGE OUTLINE

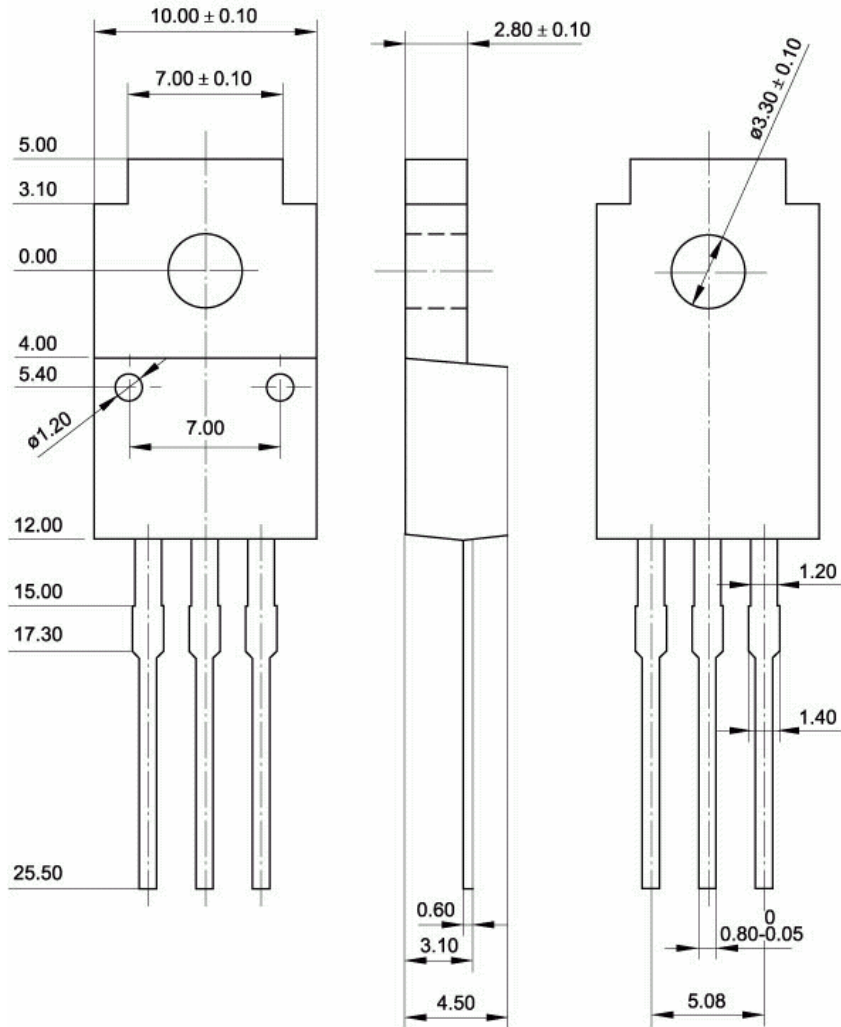


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)