

Silicon PNP Power Transistors

2SA1109

DESCRIPTION

- With TO-3 package
- Low collector saturation voltage
- High transition frequency

APPLICATIONS

- For audio frequency amplifier and high power amplifier applications

PINNING(see Fig.2)

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

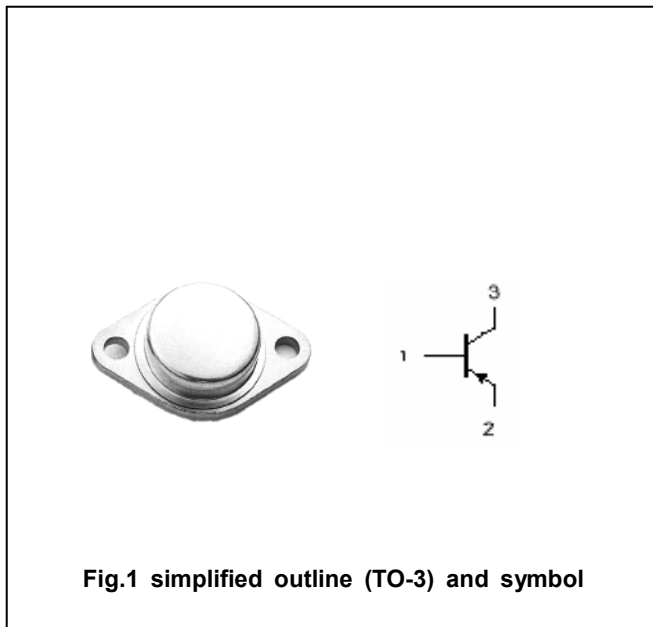


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=□)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-----------------------------|---------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | -180 | V |
| V _{CEO} | Collector-emitter voltage | Open base | -180 | V |
| V _{EBO} | Emitter-base voltage | Open collector | -5 | V |
| I _C | Collector current | | -10 | A |
| I _{CM} | Collector current-peak | | -14 | A |
| P _C | Collector power dissipation | T _C =25□ | 200 | W |
| T _j | Junction temperature | | 150 | □ |
| T _{stg} | Storage temperature | | -65~150 | □ |

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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 =-25mA ; I _B =0 | -180 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-5A ; I _B =-0.5A | | | -2.0 | V |
| V _{BE} | Base-emitter on voltage | I _C =-5A ; V _{CE} =-5V | | | -1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-180V ; I _E =0 | | | -0.1 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-5V ; I _C =0 | | | -0.1 | mA |
| h _{FE-1} | DC current gain | I _C =-2A ; V _{CE} =-5V | 50 | | 160 | |
| h _{FE-2} | DC current gain | I _C =-5A ; V _{CE} =-5V | 30 | | | |
| f _T | Transition frequency | I _C =-0.5A ; V _{CE} =-5V | | 60 | | MHz |

PACKAGE OUTLINE



Fig.2 outline dimensions (unindicated tolerance:±0.1mm)