

Silicon PNP Power Transistors

2SB697 2SB697K

DESCRIPTION

- With TO-3 package
- Complement to type 2SD733/733K
- High power dissipation

APPLICATIONS

- Power amplifier applications
- Recommended for high-power high-fidelity audio frequency amplifier output stage

PINNING(see Fig.2)

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

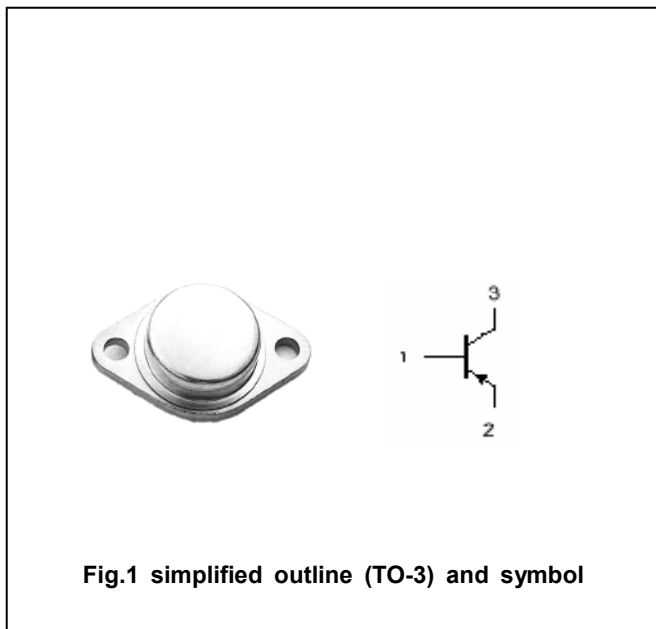


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=□)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-----------------------------|---------------------|---------|------|
| V _{CBO} | Collector-base voltage | 2SB697 | -160 | V |
| | | 2SB697K | -180 | |
| V _{CEO} | Collector-emitter voltage | 2SB697 | -140 | V |
| | | 2SB697K | -160 | |
| V _{EBO} | Emitter-base voltage | Open collector | -6 | V |
| I _C | Collector current | | -12 | A |
| I _{CM} | Collector current-peak | | -20 | A |
| P _C | Collector power dissipation | T _C =25□ | 100 | W |
| T _j | Junction temperature | | 150 | □ |
| T _{stg} | Storage temperature | | -40~150 | □ |

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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 | 2SB697 | I _C =-50mA ; I _B =0 | -140 | | | V |
| | | 2SB697K | | -160 | | | |
| V _{(BR)CBO} | Collector-emitter breakdown voltage | 2SB697 | I _C =-5mA ; I _E =0 | -160 | | | V |
| | | 2SB697K | | -180 | | | |
| V _{(BR)EBO} | Emitter-base breakdown voltage | | I _E =-5mA ; I _C =0 | -6 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | | I _C =-6A ; I _B =-0.6A | | -1.0 | -2.5 | V |
| V _{BE} | Base-emitter on voltage | | I _C =-1A ; V _{CE} =-5V | | | -1.5 | V |
| I _{CBO} | Collector cut-off current | | V _{CB} =-80V ; 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 =-1A ; V _{CE} =-5V | 40 | | 320 | |
| h _{FE-2} | DC current gain | | I _C =-5A ; V _{CE} =-5V | 20 | | | |
| f _T | Transition frequency | | I _C =-1A ; V _{CE} =-5V | | 15 | | MHz |

◆ h_{FE-1} Classifications

| C | D | E | F |
|-------|--------|---------|---------|
| 40-80 | 60-120 | 100-200 | 160-320 |

PACKAGE OUTLINE

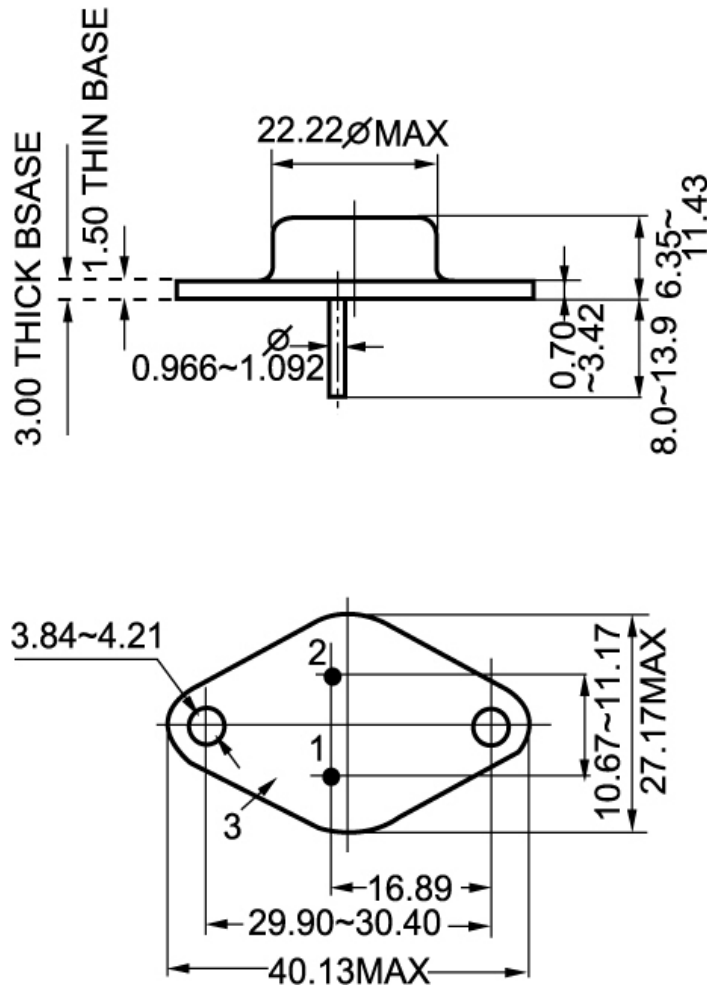


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)