

Silicon PNP Power Transistors

2SA747

DESCRIPTION

- With TO-3 package
- Wide area of safe operation
- Complement to type 2SC1116

APPLICATIONS

- For audio and general purpose applications

PINNING(see Fig.2)

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

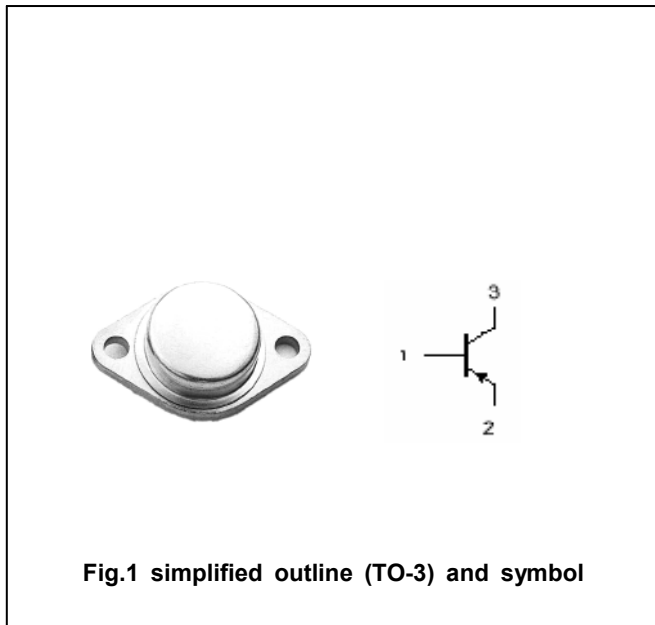


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=□)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-----------------------------|---------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | -120 | V |
| V _{CEO} | Collector-emitter voltage | Open base | -120 | V |
| V _{EBO} | Emitter-base voltage | Open collector | -6 | V |
| I _C | Collector current | | -10 | A |
| I _B | Base current | | -4 | A |
| P _C | Collector power dissipation | T _C =25□ | 100 | 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 =-50mA ; I _B =0 | -120 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =-1mA ; I _C =0 | -6 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-5A ; I _B =-0.5A | | | -2.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =-5A ; I _B =-0.5A | | | -2.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-120V ; I _E =0 | | | -0.1 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-6V ; I _C =0 | | | -1.0 | mA |
| h _{FE} | DC current gain | I _C =-3A ; V _{CE} =-4V | 30 | | | |
| f _T | Transition frequency | I _C =-0.5A ; V _{CE} =-12V | | 15 | | MHz |

Switching times

| | | | | | | |
|------------------|--------------|--|--|-----|--|----|
| t _r | Rise time | V _{CC} =-12V; R _L =4Ω; I _C =-3A I _{B1} =-200mA, I _{B2} =50mA | | 1.2 | | μs |
| t _{stg} | Storage time | | | 3.3 | | μs |
| t _f | Fall time | | | 0.8 | | μs |

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PACKAGE OUTLINE



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