

Silicon PNP Power Transistors

2N4898 2N4899 2N4900

DESCRIPTION

- With TO-66 package
- Low collector saturation voltage
- Excellent safe operating area
- 2N4900 complement to type 2N4912

APPLICATIONS

- Designed for driver circuits,switching and amplifier applications

PINNING

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

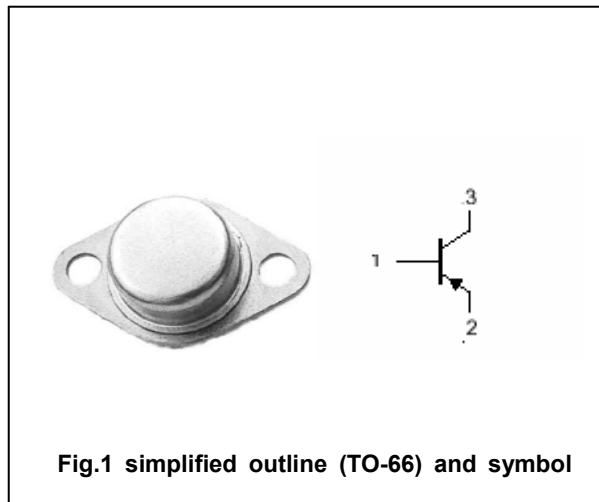


Fig.1 simplified outline (TO-66) and symbol

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | 2N4898 | -40 | V |
| | | 2N4899 | -60 | |
| | | 2N4900 | -80 | |
| V _{CEO} | Collector-emitter voltage | 2N4898 | -40 | V |
| | | 2N4899 | -60 | |
| | | 2N4900 | -80 | |
| V _{EBO} | Emitter-base voltage | Open collector | -5 | V |
| I _C | Collector current | | -1.0 | A |
| I _{CM} | Collector current-peak | | -4.0 | A |
| I _B | Base current | | -1.0 | A |
| P _D | Total Power Dissipation | T _C =25°C | 25 | W |
| T _j | Junction temperature | | 150 | °C |
| T _{stg} | Storage temperature | | -65~200 | °C |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | VALUE | UNIT |
|----------------------|-------------------------------------|-------|------|
| R _{(th) jc} | Thermal resistance junction to case | 7.0 | °C/W |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|-----------------------------------------------------------------------------------------------|-----|------|--------------|------|
| V _{CEO(SUS)} | Collector-emitter sustaining voltage | 2N4898 | -40 | | | V |
| | | 2N4899 | -60 | | | |
| | | 2N4900 | -80 | | | |
| | | I _C =-0.1A ; I _B =0 | | | | |
| V _{CE(sat)} | Collector-emitter saturation voltage | I _C =-1A ; I _B =-0.1A | | | -0.6 | V |
| V _{BE(sat)} | Base-emitter saturation voltage | I _C =-1A ; I _B =-0.1A | | | -1.3 | V |
| V _{BE(on)} | Base-emitter on voltage | I _C =-1A ; V _{CE} =-1V | | | -1.3 | V |
| I _{CEO} | Collector cut-off current | 2N4898 | | | | mA |
| | | 2N4899 | | | | |
| | | 2N4900 | | | | |
| | | V _{CE} =-20V ; I _B =0 | | | | |
| | | V _{CE} =-30V ; I _B =0 | | | -0.5 | |
| | | V _{CE} =-40V ; I _B =0 | | | | |
| I _{CEX} | Collector cut-off current | V _{CE} =Rated V _{CEO} ; V _{BE(off)} =1.5V T _C =150°C | | | -0.1 -1.0 | mA |
| I _{CBO} | Collector cut-off current | V _{CB} =Rated V _{CBO} ; I _E =0 | | | -0.1 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-5V ; I _C =0 | | | -1.0 | mA |
| h _{FE-1} | DC current gain | I _C =-50mA ; V _{CE} =-1V | 40 | | | |
| h _{FE-2} | DC current gain | I _C =-500mA ; V _{CE} =-1V | 20 | | 100 | |
| h _{FE-3} | DC current gain | I _C =-1.0A ; V _{CE} =-1V | 10 | | | |
| C _{OB} | Output capacitance | I _E =0 ; V _{CB} =-10V ; f=1MHz | | | 100 | pF |
| f _T | Transition frequency | I _C =-250mA ; V _{CE} =-10V | 3.0 | | | MHz |

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PACKAGE OUTLINE



Fig.2 outline dimensions