

Inchange Semiconductor

Product Specification

Silicon PNP Power Transistors

2N6029 2N6030

DESCRIPTION

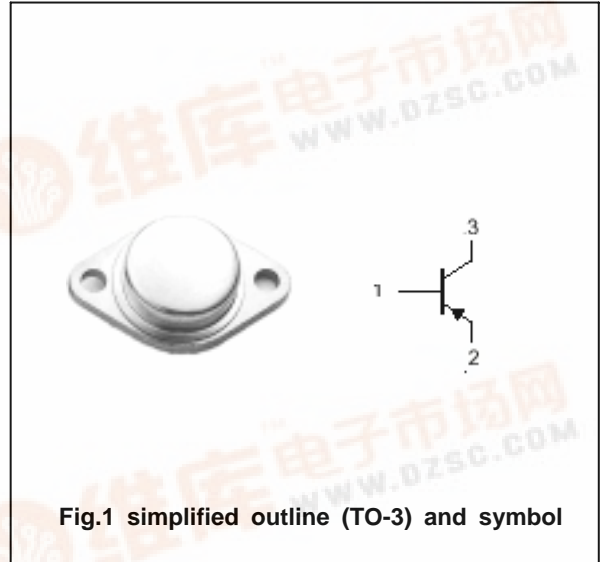
- With TO-3 package
- Complement to type 2N5629 2N5630
- High power dissipations

APPLICATIONS

- For high voltage and high power amplifier applications

PINNING

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



Absolute maximum ratings(Ta=)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|--------------------|---------|------|
| V _{CBO} | Collector-base voltage | 2N6029 | -100 | V |
| | | 2N6030 | -120 | |
| V _{CEO} | Collector-emitter voltage | 2N6029 | -100 | V |
| | | 2N6030 | -120 | |
| V _{EBO} | Emitter-base voltage | Open collector | -7 | V |
| I _C | Collector current | | -16 | A |
| I _{CM} | Collector current-peak | | -20 | A |
| I _B | Base current | | -5.0 | A |
| P _D | Total Power Dissipation | T _C =25 | 200 | W |
| T _j | Junction temperature | | 150 | |
| T _{stg} | Storage temperature | | -65~200 | |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | VALUE | UNIT |
|---------------------|-------------------------------------|-------|------|
| R _{th j-c} | Thermal resistance junction to case | 0.875 | /W |

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CHARACTERISTICS

T_j=25 unless otherwise specified

| SYMBOL | PARAMETER | | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|---|--------|---|------|------|------|------|
| V _{CEO(SUS)} | Collector-emitter sustaining voltage | 2N6029 | I _C =-0.2A ; I _B =0 | -100 | | | V |
| | | 2N6030 | | -120 | | | |
| V _{CEsat-1} | Collector-emitter saturation voltage | | I _C =-10A; I _B =-1A | | | -1.0 | V |
| V _{CEsat-2} | Collector-emitter saturation voltage | | I _C =-16A ; I _B =-4A | | | -2.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | | I _C =-10A; I _B =-1A | | | -1.8 | V |
| V _{BE} | Base-emitter on voltage | | I _C =-8A ; V _{CE} =-2V | | | -1.5 | V |
| I _{CBO} | Collector cut-off current | | V _{CB} =ratedV _{CB} ; I _E =0 | | | -1.0 | mA |
| I _{CEO} | Collector cut-off current | 2N6029 | V _{CE} =-50V; I _B =0 | | | -1.0 | mA |
| | | 2N6030 | V _{CE} =-60V; I _B =0 | | | | |
| I _{CEV} | Collector cut-off current (V _{BE(off)} =1.5V) | | V _{CE} =ratedV _{CB} | | | -1.0 | mA |
| | | | V _{CE} =ratedV _{CB} ; T _C =150 | | | -5.0 | |
| I _{EBO} | Emitter cut-off current | | V _{EB} =-7V; I _C =0 | | | -1.0 | mA |
| h _{FE-1} | DC current gain | 2N6029 | I _C =-8A ; V _{CE} =-2V | 25 | | 100 | |
| | | 2N6030 | | 20 | | 80 | |
| h _{FE-2} | DC current gain | | I _C =-16A ; V _{CE} =-2V | 4 | | | |
| C _{OB} | Output capacitance | | I _E =0 ; V _{CB} =-10V ; f=0.1MHz | | | 1000 | pF |
| f _T | Transition frequency | | I _C =-1A ; V _{CE} =-20V | 1.0 | | | MHz |

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PACKAGE OUTLINE

