

Silicon NPN Power Transistors

2N6671 2N6672 2N6673

DESCRIPTION

- With TO-3 package
- Low saturation voltage
- Fast switching speed
- High voltage ratings

APPLICATIONS

- Off-line power supplies
- High-voltage inverters
- Switching regulators

PINNING

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

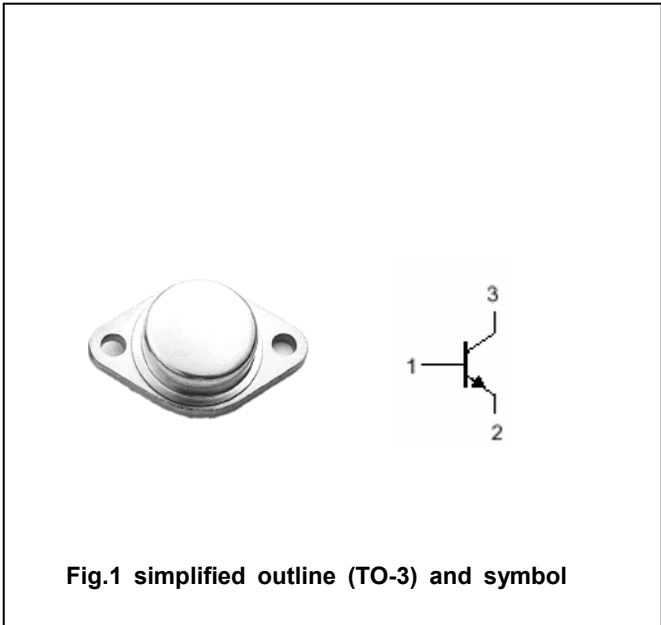


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=□)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|---------------------|---------|------|
| V _{CBO} | Collector-base voltage | 2N6671 | 450 | V |
| | | 2N6672 | 550 | |
| | | 2N6673 | 650 | |
| V _{CEO} | Collector-emitter voltage | 2N6671 | 300 | V |
| | | 2N6672 | 350 | |
| | | 2N6673 | 400 | |
| V _{EBO} | Emitter-base voltage | Open collector | 8 | V |
| I _C | Collector current | | 8 | A |
| I _{CM} | Collector current-peak | | 10 | A |
| I _B | Base current | | 4 | A |
| P _D | Total Power Dissipation | T _C =25□ | 150 | W |
| T _j | Junction temperature | | 200 | □ |
| T _{stg} | Storage temperature | | -65~200 | □ |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT | |
|-----------------------|--------------------------------------|---------------------------------------------------|----------------------------------------------------|------|-----|------|----|
| V _{CE0(SUS)} | Collector-emitter sustaining voltage | 2N6671 | 300 | | | V | |
| | | 2N6672 | 350 | | | | |
| | | 2N6673 | 400 | | | | |
| V _{CEsat-1} | Collector-emitter saturation voltage | I _C =5A; I _B =1A | | | 1.0 | V | |
| V _{CEsat-2} | Collector-emitter saturation voltage | I _C =8A; I _B =4A | | | 2.0 | V | |
| V _{BEsat} | Base-emitter saturation voltage | I _C =5A; I _B =1A | | | 1.6 | V | |
| I _{CEV} | Collector cut-off current | 2N6671 | V _{CE} =450V; V _{BE(off)} =-1.5V | | | 0.1 | mA |
| | | 2N6672 | V _{CE} =550V; V _{BE(off)} =-1.5V | | | | |
| | | 2N6673 | V _{CE} =650V; V _{BE(off)} =-1.5V | | | | |
| I _{EBO} | Emitter cut-off current | V _{EB} =8V; I _C =0 | | | 2.0 | mA | |
| h _{FE} | DC current gain | I _C =5A; V _{CE} =3V | 10 | | 40 | | |
| C _{OB} | Output capacitance | I _E =0; V _{CB} =10V; f=0.1MHz | | | 300 | pF | |
| f _T | Transition frequency | I _C =0.2A; V _{CE} =10V | 15 | | 60 | MHz | |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | VALUE | UNIT |
|---------------------|-------------------------------------|-------|------|
| R _{th j-c} | Thermal resistance junction to case | 1.17 | °C/W |

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PACKAGE OUTLINE

