

Silicon NPN Power Transistors

2N6751 2N6752

DESCRIPTION

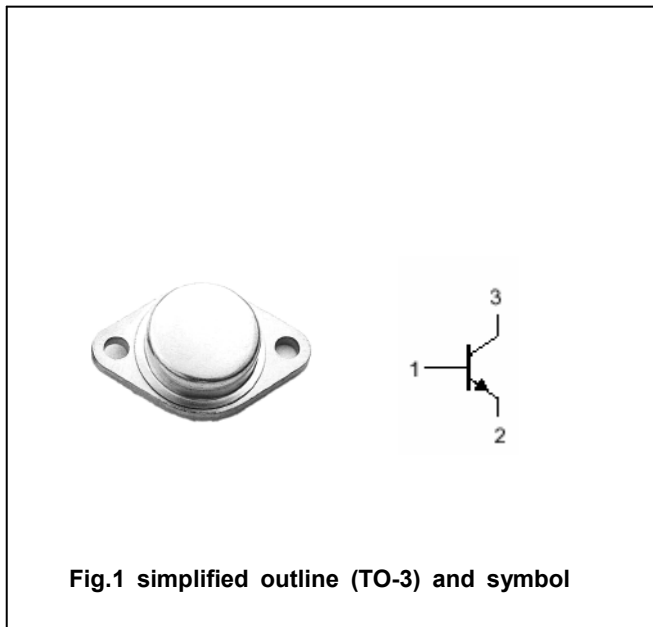
- With TO-3 package
- High breakdown voltage
- Low saturation voltage
- Fast switching speed

APPLICATIONS

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

PINNING

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



Absolute maximum ratings(Ta=□)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|---------------------|---------|------|
| V _{CBO} | Collector-base voltage | 2N6751 | 800 | V |
| | | 2N6752 | 850 | |
| V _{CEO} | Collector-emitter voltage | 2N6751 | 400 | V |
| | | 2N6752 | 450 | |
| V _{EBO} | Emitter-base voltage | Open collector | 8 | V |
| I _C | Collector current | | 10 | A |
| I _B | Base current | | 5 | A |
| P _D | Total Power Dissipation | T _C =25□ | 150 | W |
| T _j | Junction temperature | | -65~175 | □ |
| T _{stg} | Storage temperature | | -65~200 | □ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | VALUE | UNIT |
|---------------------|-------------------------------------|-------|------|
| R _{th j-c} | Thermal resistance junction to case | 1.0 | □/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 | 2N6751 | I _C =0.2A ; I _B =0 | | | V |
| | | 2N6752 | | | | |
| 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 =10A ; I _B =3A | | | 3.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =5A ; I _B =1A | | | 1.3 | V |
| I _{CEV} | Collector cut-off current | 2N6751 | V _{CE} =800V ; V _{BE} =-1.5V T _C =100°C | | 0.1 1.0 | mA |
| | | 2N6752 | | | | |
| 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 | 8 | | 40 | |
| C _{OB} | Output capacitance | I _E =0 ; V _{CB} =10V ; f=0.1MHz | 50 | | 250 | pF |
| f _T | Transition frequency | I _C =0.2A ; V _{CE} =10V | 15 | | 60 | MHz |

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PACKAGE OUTLINE



Fig.2 outline dimensions (unindicated tolerance:±0.10mm)