

Silicon NPN Power Transistors

2N6359

DESCRIPTION

- With TO-3 package
- Low collector saturation voltage
- High DC current gain
- Excellent safe operating area

APPLICATIONS

- Designed for high power applications and switching circuits such as relay or solenoid drivers, dc to dc converters or inverters.

PINNING

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

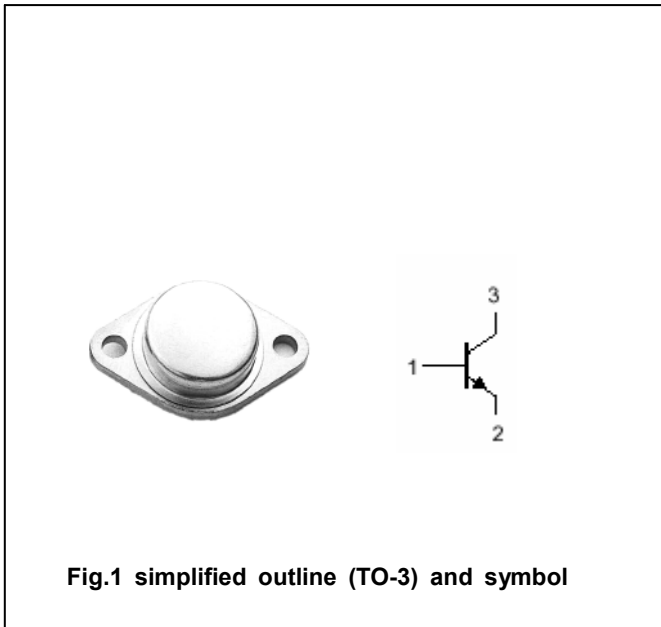


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=□)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|---------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | 100 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 80 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 7 | V |
| I _C | Collector current | | 16 | A |
| I _{CM} | Collector current-peak | | 30 | A |
| I _B | Base current | | 4 | A |
| P _D | Total Power Dissipation | T _C =25□ | 150 | 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 | 1.17 | □/W |

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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 =0.2A ; I _B =0 | 80 | | | V |
| V _{CEsat-1} | Collector-emitter saturation voltage | I _C =8A ; I _B =0.8A | | | 1.4 | V |
| V _{CEsat-2} | Collector-emitter saturation voltage | I _C =16A ; I _B =3.2A | | | 4.0 | V |
| V _{BE} | Base-emitter on voltage | I _C =8A ; V _{CE} =4V | | | 2.2 | V |
| I _{CEO} | Collector cut-off current | V _{CE} =80V ; I _B =0 | | | 2.0 | mA |
| I _{CEX} | Collector cut-off current | V _{CE} =100V ; V _{BE(off)} =1.5V T _C =150 °C | | | 2.0 10.0 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =7V ; I _C =0 | | | 5.0 | mA |
| h _{FE-1} | DC current gain | I _C =8A ; V _{CE} =4V | 15 | | 60 | |
| h _{FE-2} | DC current gain | I _C =16A ; V _{CE} =4V | 5 | | | |
| f _T | Transition frequency | I _C =1A ; V _{CE} =4V | 0.2 | | | MHz |

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PACKAGE OUTLINE



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