

Silicon NPN Power Transistors

2SC1141

DESCRIPTION

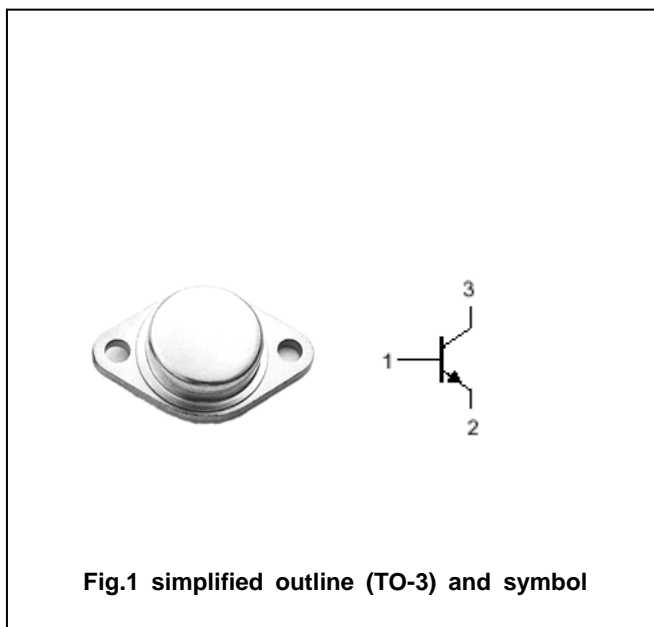
- With TO-3 package
- High voltage ,high speed

APPLICATIONS

- Converters
- Inverters
- Switching regulators
- Motor controls

PINNING (See Fig.2)

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



Absolute maximum ratings(Ta=°C)

| SYMBOL | PARAMETER | CONDITIONS | MAX | UNIT |
|------------------|---------------------------|-----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | 600 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 300 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 7 | V |
| I _C | Collector current | | 15 | A |
| P _T | Total power dissipation | T _{mb} =25°C | 150 | W |
| T _j | Junction temperature | | 200 | °C |
| T _{stg} | Storage temperature | | -65~200 | °C |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | VALUE | UNIT |
|----------------------|---|-------|------|
| R _{th j-mb} | Thermal resistance from junction to mounting base | 1.0 | °C/W |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|--|-----|------|-----|------|
| V _{CEQ(SUS)} | Collector-emitter sustaining voltage | I _C =0.1A ; I _B =0 | 300 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1mA ; I _C =0 | 7 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =8A ; I _B =1.6A | | | 1.5 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =8A ; I _B =1.6A | | | 1.6 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =600V ; I _E =0 | | | 0.1 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =7V ; I _C =0 | | | 0.1 | mA |
| h _{FE-1} | DC current gain | I _C =1A ; V _{CE} =5V | 15 | | 50 | |
| h _{FE-2} | DC current gain | I _C =7.5A ; V _{CE} =5V | 10 | | 25 | |
| f _T | Transition frequency | I _C =1A ; V _{CE} =5V | | 10 | | MHz |

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PACKAGE OUTLINE

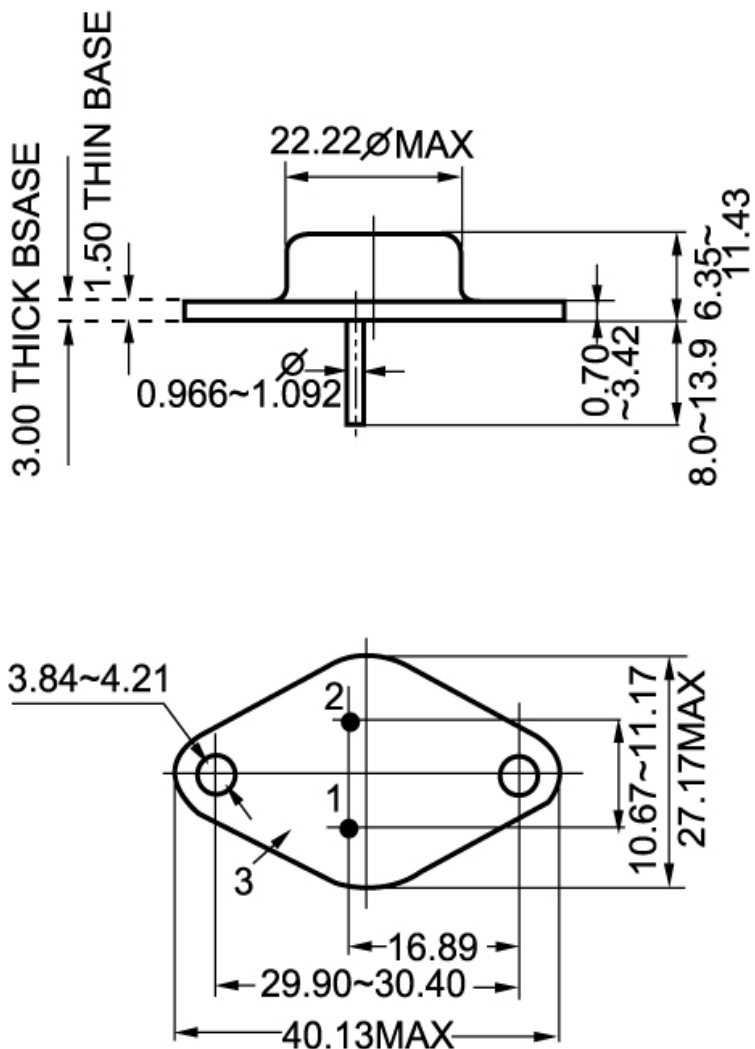


Fig.2 Outline dimensions