# Silicon NPN Power Transistors 2SC1785

## DESCRIPTION
·With TO-3 package
·High power dissipation

## APPLICATIONS
·Power amplifier applications
·Power switching applications

**PINNING(see Fig.2)**

| 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 | 200 | V |
| $V_{CEO}$ | Collector-emitter voltage | Open base | 200 | V |
| $V_{EBO}$ | Emitter-base voltage | Open collector | 6 | V |
| $I_C$ | Collector current | | 15 | A |
| $I_B$ | Base current | | 4 | A |
| $P_C$ | Collector power dissipation | $T_C$=25□ | 100 | W |
| $T_j$ | Junction temperature | | 150 | □ |
| $T_{stg}$ | Storage temperature | | -55~150 | □ |

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## CHARACTERISTICS

**Tj=25□ unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage | $I_C$=50mA ;$I_B$=0 | 200 | | | V |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage | $I_E$=1mA ;$I_C$=0 | 6 | | | V |
| $V_{CEsat}$ | Collector-emitter saturation voltage | $I_C$=10A; $I_B$=1A | | | 2.0 | V |
| $V_{BEsat}$ | Base-emitter saturation voltage | $I_C$=10A; $I_B$=1A | | | 2.5 | V |
| $I_{CBO}$ | Collector cut-off current | $V_{CB}$=200V; $I_E$=0 | | | 100 | μA |
| $I_{EBO}$ | Emitter cut-off current | $V_{EB}$=6V; $I_C$=0 | | | 100 | μA |
| $h_{FE}$ | DC current gain | $I_C$=5A ; $V_{CE}$=4V | 20 | | | |

**PACKAGE OUTLINE**

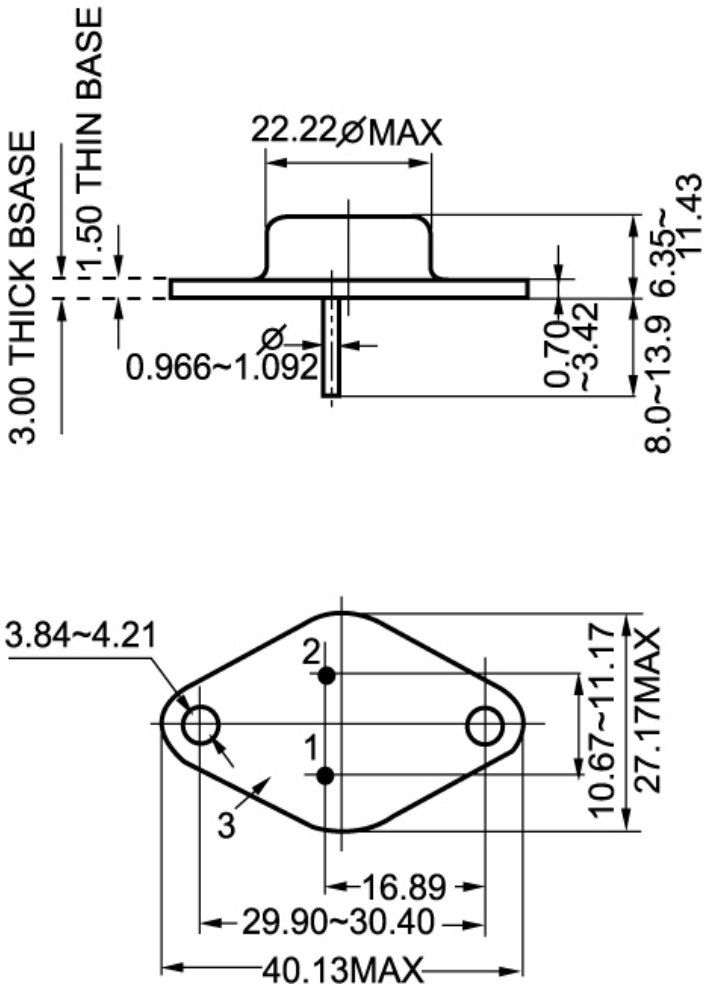


**Fig.2 outline dimensions (unindicated tolerance:±0.1mm)**