# Silicon PNP Power Transistors 2SB1419

## DESCRIPTION

·With TO-3PL package
·Wide area of safe operation
·Low collector saturation voltage

## APPLICATIONS

·For low frequency and high power amplifier applications

**PINNING**

| PIN | DESCRIPTION |
|---|---|
| 1 | Emitter |
| 2 | Collector;connected to mounting base |
| 3 | Base |

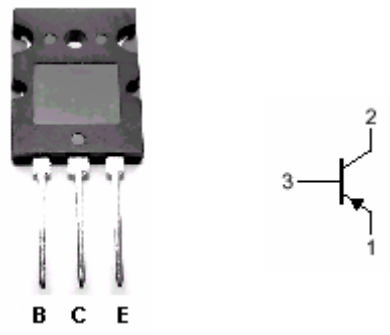


**Fig.1 simplified outline (TO-3PL) and symbol**

## Absolute maximum ratings(Ta=25□)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|---|---|---|---|---|
| $V_{CBO}$ | Collector-base voltage | Open emitter | -160 | V |
| $V_{CEO}$ | Collector-emitter voltage | Open base | -160 | V |
| $V_{EBO}$ | Emitter-base voltage | Open collector | -5 | V |
| $I_C$ | Collector current | | -12 | A |
| $I_{CM}$ | Collector current-peak | | -20 | A |
| $P_C$ | Collector power dissipation | $T_C$=25□ | 120 | 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 | -160 | | | V |
| $V_{CEsat}$ | Collector-emitter saturation voltage | $I_C$=-8A ;$I_B$=-0.8A | | | -1.8 | V |
| $V_{BE}$ | Base-emitter voltage | $I_C$=-8A ; $V_{CE}$=-5V | | | -1.8 | V |
| $I_{CBO}$ | Collector cut-off current | $V_{CB}$=-160V; $I_E$=0 | | | -50 | μA |
| $I_{EBO}$ | Emitter cut-off current | $V_{EB}$=-5V; $I_C$=0 | | | -50 | μA |
| $h_{FE-1}$ | DC current gain | $I_C$=-20mA ; $V_{CE}$=-5V | 20 | | | |
| $h_{FE-2}$ | DC current gain | $I_C$=-1A ; $V_{CE}$=-5V | 60 | | 200 | |
| $h_{FE-3}$ | DC current gain | $I_C$=-8A ; $V_{CE}$=-5V | 20 | | | |

◆ **$h_{FE-2}$ classifications**

| Q | S | P |
|---|---|---|
| 60-120 | 80-160 | 100-200 |

**PACKAGE OUTLINE**

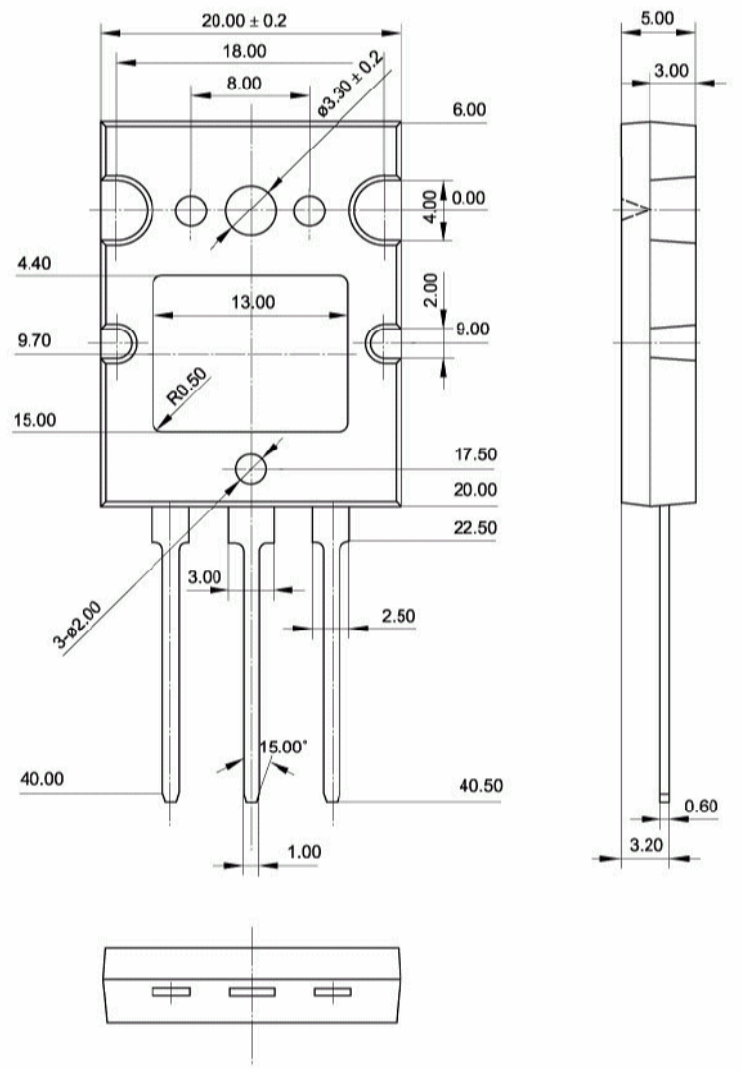


**Fig.2 Outline dimensions (unindicated tolerance:±0.50 mm)**