

Silicon PNP Power Transistors

2SB713

DESCRIPTION

- With TO-3PN package
- Wide area of safe operation
- Excellent good linearity of h_{FE}

APPLICATIONS

- For high power amplifier applications

PINNING

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

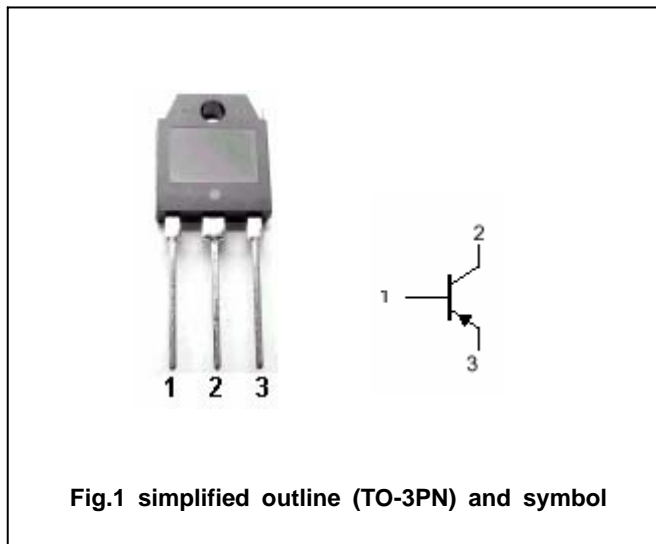


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings($T_c=25$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | -200 | V |
| V_{CEO} | Collector-emitter voltage | Open base | -140 | V |
| V_{EBO} | Emitter-base voltage | Open collector | -5 | V |
| I_C | Collector current (DC) | | -9 | A |
| I_{CP} | Collector current (Pulse) | | -15 | 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

T_j=25 unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|--------------------|--------------------------------------|---|-----|------|------|------|
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-7A; I _B =-0.7A | | | -2.0 | V |
| V _{BE} | Base-emitter on voltage | I _C =-7A; V _{CE} =-5V | | | -1.8 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-140V; I _E =0 | | | -50 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-3V; 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 | 40 | | 200 | |
| h _{FE-3} | DC current gain | I _C =-7A; V _{CE} =-5V | 15 | | | |
| f _T | Transition frequency | I _C =-0.5A; V _{CE} =-5V | | 7 | | MHz |
| C _{OB} | Collector output capacitance | f=1MHz; V _{CB} =-10V | | 220 | | pF |

◆ h_{FE-2} Classifications

| R | Q | P |
|-------|--------|---------|
| 40-80 | 60-120 | 100-200 |

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PACKAGE OUTLINE

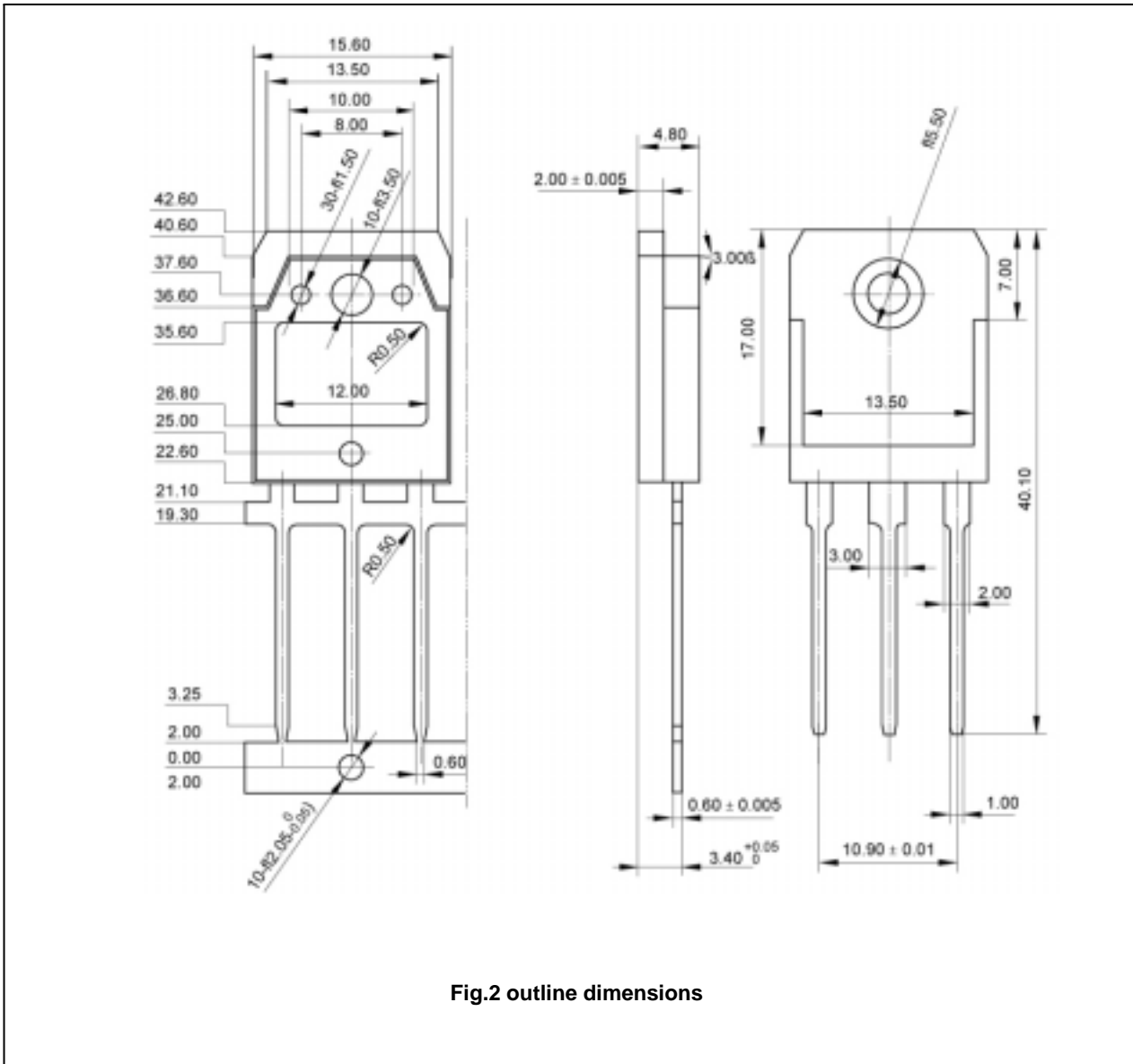


Fig.2 outline dimensions