

Silicon PNP Power Transistors

2SB688

DESCRIPTION

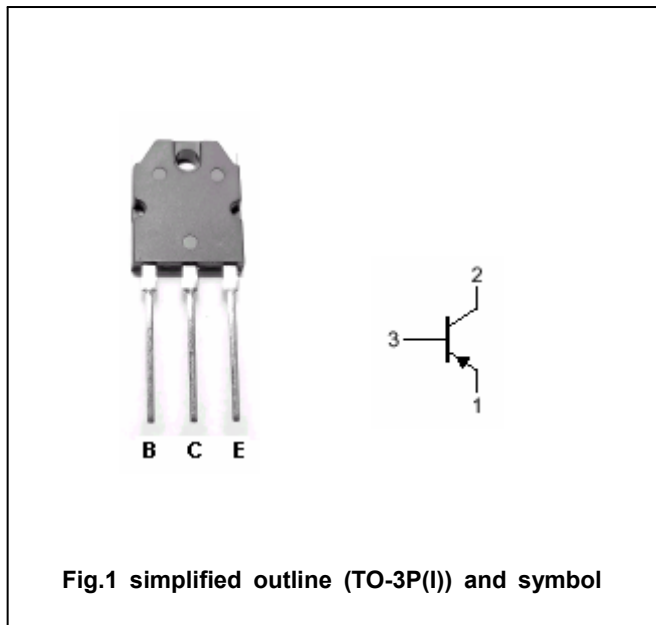
- With TO-3P(I) package
- Complement to type 2SD718

APPLICATIONS

- Power amplifier applications
- Recommend for 45~50W audio frequency amplifier output stage

PINNING

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



Absolute maximum ratings(Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | -120 | V |
| V _{CEO} | Collector-emitter voltage | Open base | -120 | V |
| V _{EBO} | Emitter-base voltage | Open collector | -5 | V |
| I _C | Collector current | | -8 | A |
| I _B | Base current | | -0.8 | A |
| P _T | Total power dissipation | T _C =25°C | 80 | W |
| T _j | Junction temperature | | 150 | °C |
| T _{stg} | Storage temperature | | -55~150 | °C |

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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 =-50mA, I _B =0 | -120 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-5A; I _B =-0.5A | | | -2.5 | V |
| V _{BE} | Base-emitter voltage | I _C =-5A; V _{CE} =-5V | | | -1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-120V; I _E =0 | | | -10 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-5V; I _C =0 | | | -10 | μA |
| h _{FE} | DC current gain | I _C =-1A; V _{CE} =-5V | 55 | | 160 | |
| f _T | Transition frequency | I _C =-1A; V _{CE} =-5V | | 10 | | MHz |
| C _{ob} | Output capacitance | I _E =0; V _{CB} =-10V; f=1MHz | | 280 | | pF |

◆ h_{FE} Classifications

| R | O |
|--------|--------|
| 55-110 | 80-160 |

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PACKAGE OUTLINE

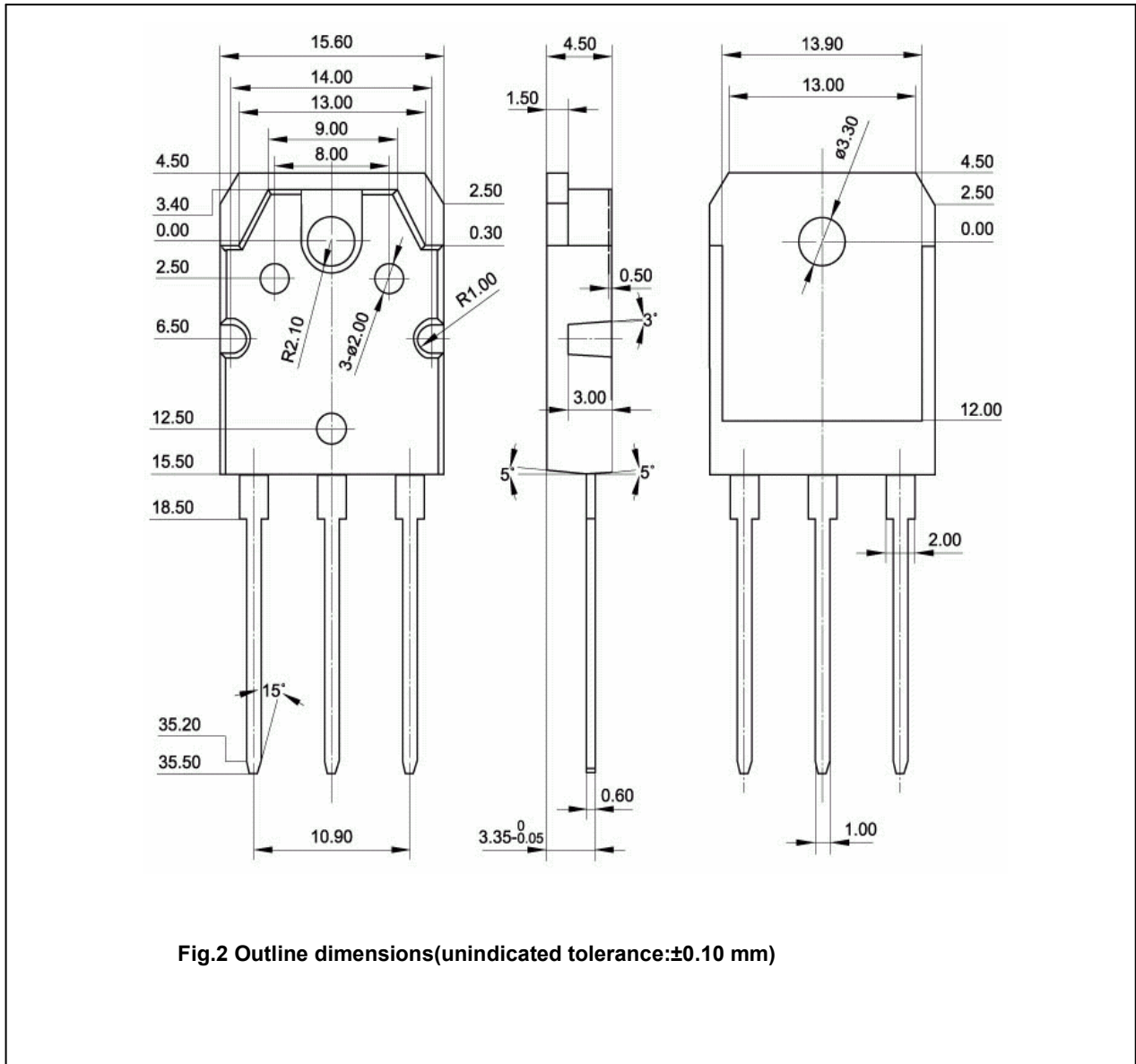


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)

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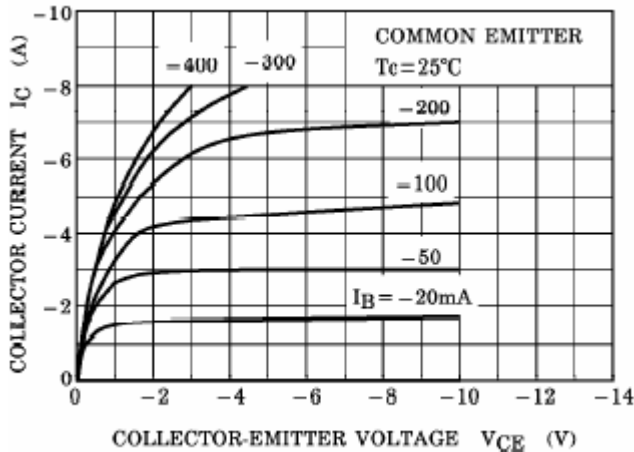


Fig.3 Static Characteristic

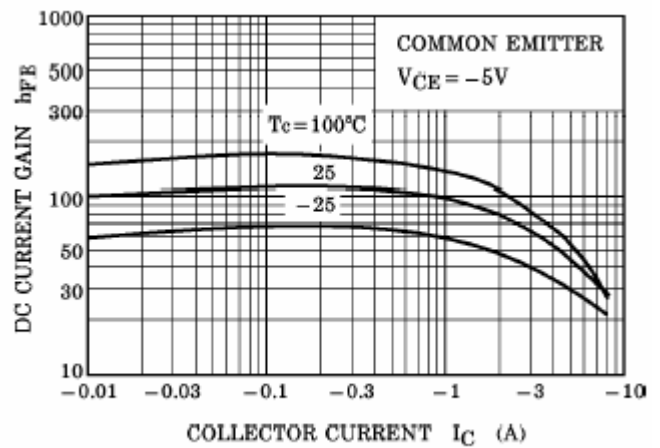


Fig.4 DC current Gain

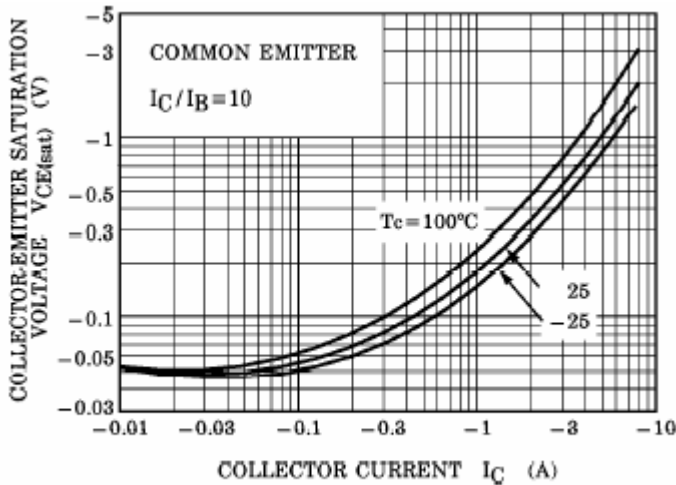


Fig.5 Collector-Emitter Saturation Voltage

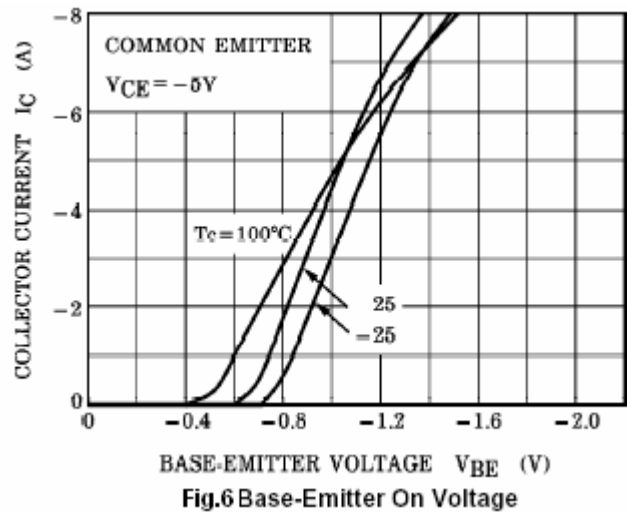


Fig.6 Base-Emitter On Voltage

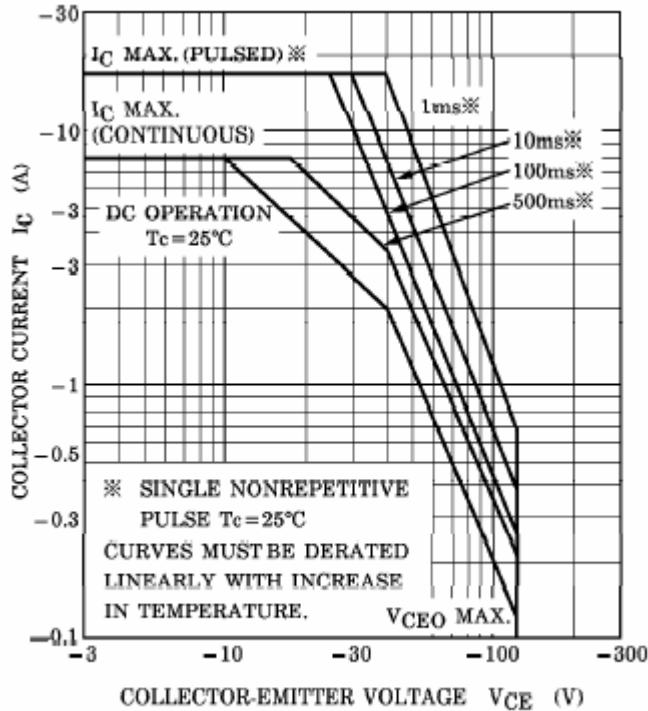


Fig.7 Safe Operating Area