

Silicon PNP Power Transistors

2SA1962

DESCRIPTION

- With TO-3P(I) package
- Complement to type 2SC5242
- High collector voltage: $V_{CEO}=-230V(\text{Min})$

APPLICATIONS

- Power amplifier applications
- Recommend for 80W high fidelity audio frequency amplifier output stage

PINNING

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

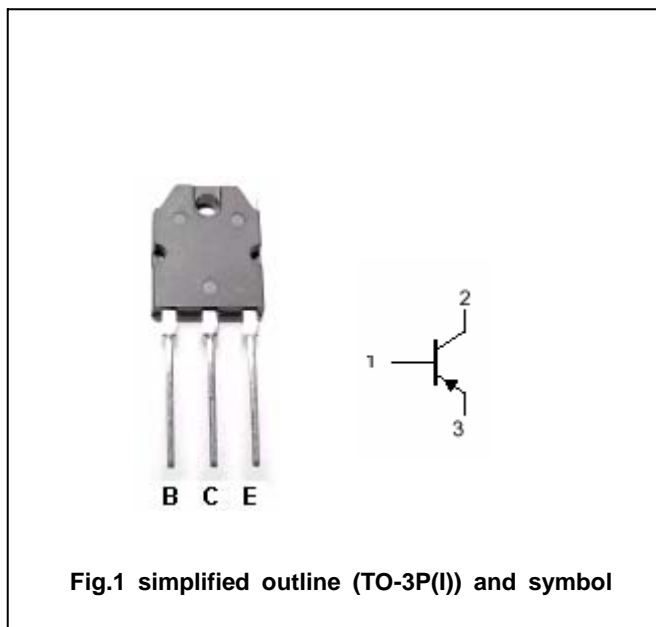


Fig.1 simplified outline (TO-3P(I)) and symbol

Absolute maximum ratings($T_c=25^\circ\text{C}$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | -230 | V |
| V_{CEO} | Collector-emitter voltage | Open base | -230 | V |
| V_{EBO} | Emitter-base voltage | Open collector | -5 | V |
| I_C | Collector current | | -15 | A |
| I_B | Base current | | -1.5 | A |
| P_C | Collector power dissipation | $T_c=25$ | 130 | W |
| T_j | Junction temperature | | 150 | |
| T_{stg} | Storage temperature | | -55~150 | |

Silicon PNP Power Transistors

2SA1962

CHARACTERISTICS

T_j=25 unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|--|------|------|------|------|
| V _{(BR)CEO} | Collector-emitter breakdown voltage | I _C =-50mA; I _B =0 | -230 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-8 A; I _B =-0.8A | | | -3.0 | V |
| V _{BE} | Base-emitter voltage | I _C =-7A ; V _{CE} =-5V | | | -1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-230V; I _E =0 | | | -5 | μ A |
| I _{EBO} | Emitter cut-off current | V _{EB} =-5V; I _C =0 | | | -5 | μ A |
| h _{FE-1} | DC current gain | I _C =-1A ; V _{CE} =-5V | 55 | | 160 | |
| h _{FE-2} | DC current gain | I _C =-7A ; V _{CE} =-5V | 35 | | | |
| f _T | Transition frequency | I _C =-1A ; V _{CE} =-5V | | 30 | | MHz |
| C _{OB} | Output capacitance | I _E =0; V _{CB} =-10V; f=1MHz | | 360 | | pF |

◆ h_{FE-1} classifications

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

Silicon PNP Power Transistors

2SA1962

PACKAGE OUTLINE

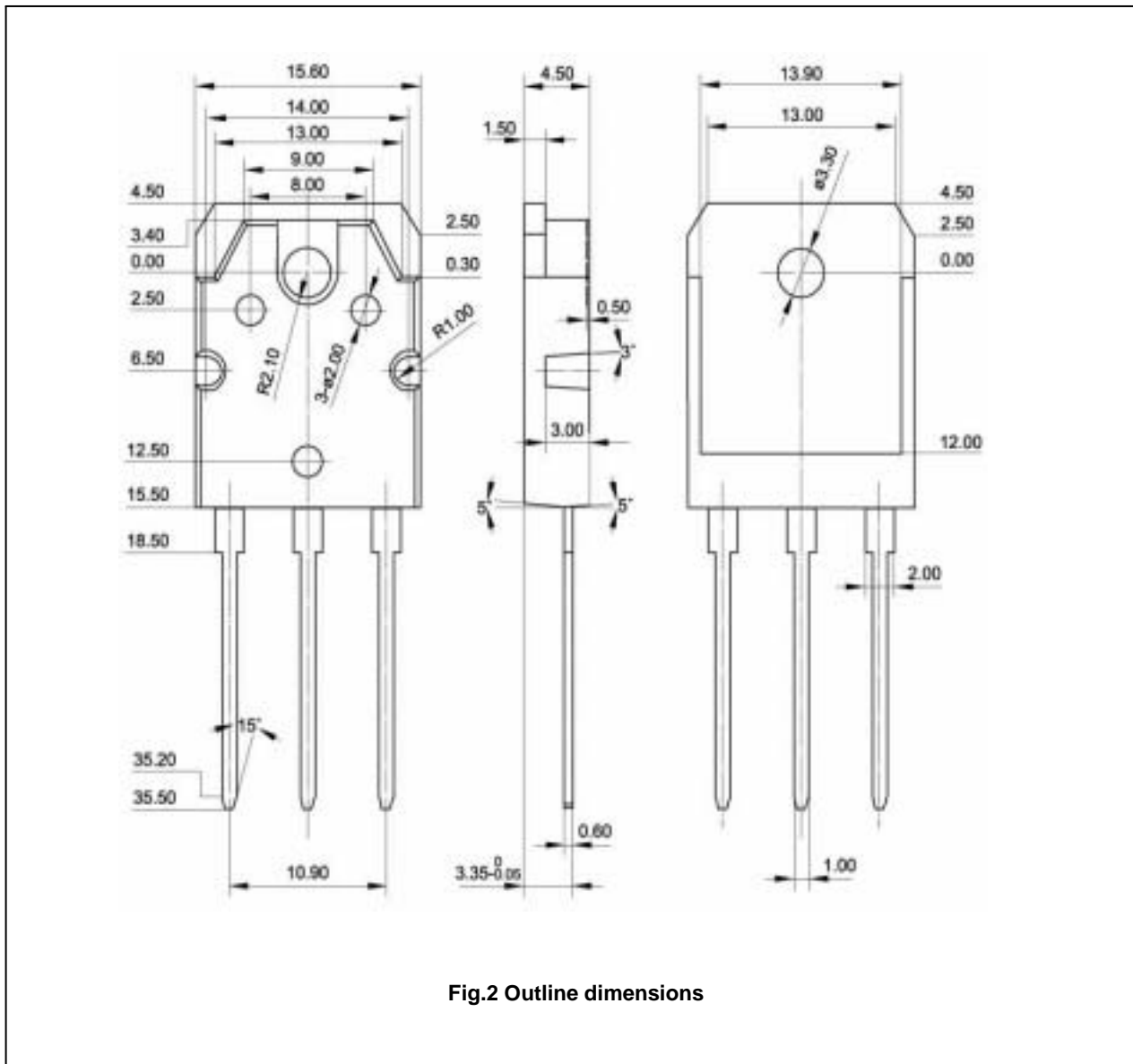


Fig.2 Outline dimensions

Silicon PNP Power Transistors

2SA1962

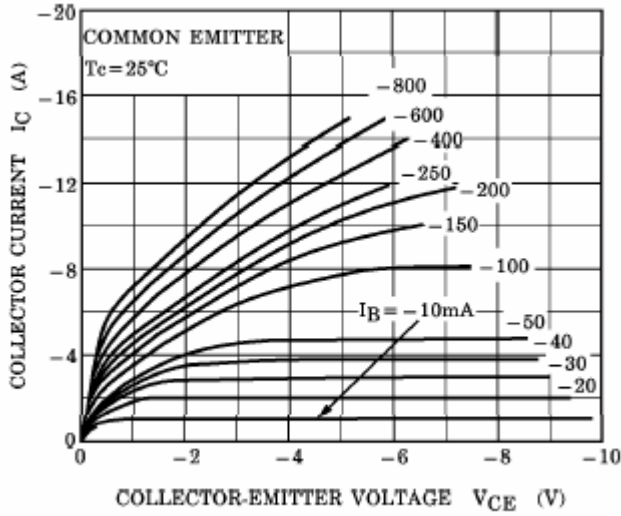


Fig.3 Static Characteristic

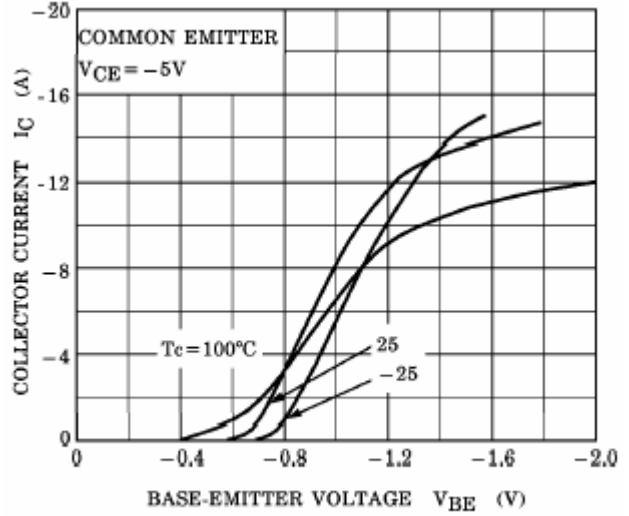


Fig.4 Base-Emitter On Voltage

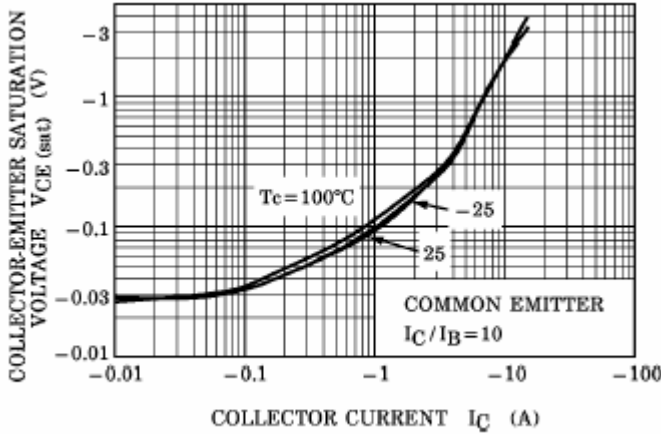


Fig.5 Collector-Emitter Saturation Voltage

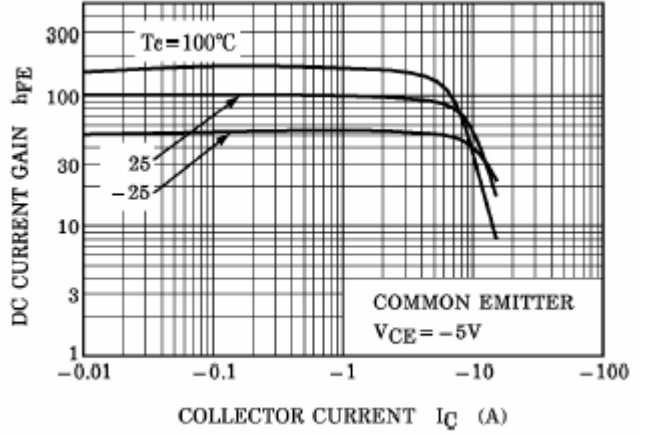


Fig.6 DC current Gain

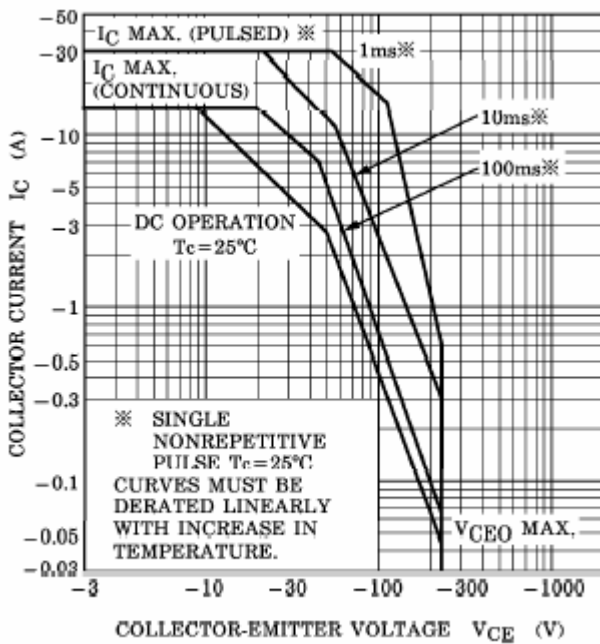


Fig.7 Safe Operating Area