

Silicon NPN Power Transistors

2SC3907

DESCRIPTION

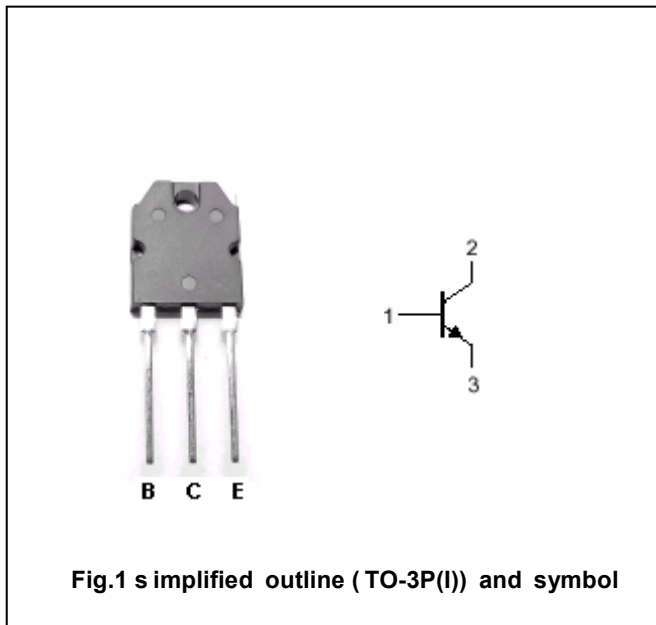
- With TO-3P(I) package
- Complement to type 2SA1516

APPLICATIONS

- Audio and general purpose power amplifier applications
- Recommend for 80W high fidelity audio frequency amplifier output stage

PINNING

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



Absolute maximum ratings (Ta=25°C)

| SYMBOL P | ARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-----------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | 180 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 180 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I _C | Collector current | | 12 | A |
| I _B | Base current | | 1.2 | A |
| P _C | Collector power dissipation | T _C =25°C | 130 | 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 | 180 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =8 A; I _B =0.8 A | | 0.3 | 2.0 | V |
| V _{BE} | Base-emitter voltage | I _C =7A; V _{CE} =5V | | 1.0 | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =180V; I _E =0 | | | 5 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | | | 5 | μA |
| h _{FE-1} | DC current gain | I _C =1A; V _{CE} =5V | | | 55 | |
| 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 | | 270 | | pF |

◆ h_{FE-1} classifications

| R | O |
|-----------|-----|
| 55-110 90 | 180 |

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PACKAGE OUTLINE

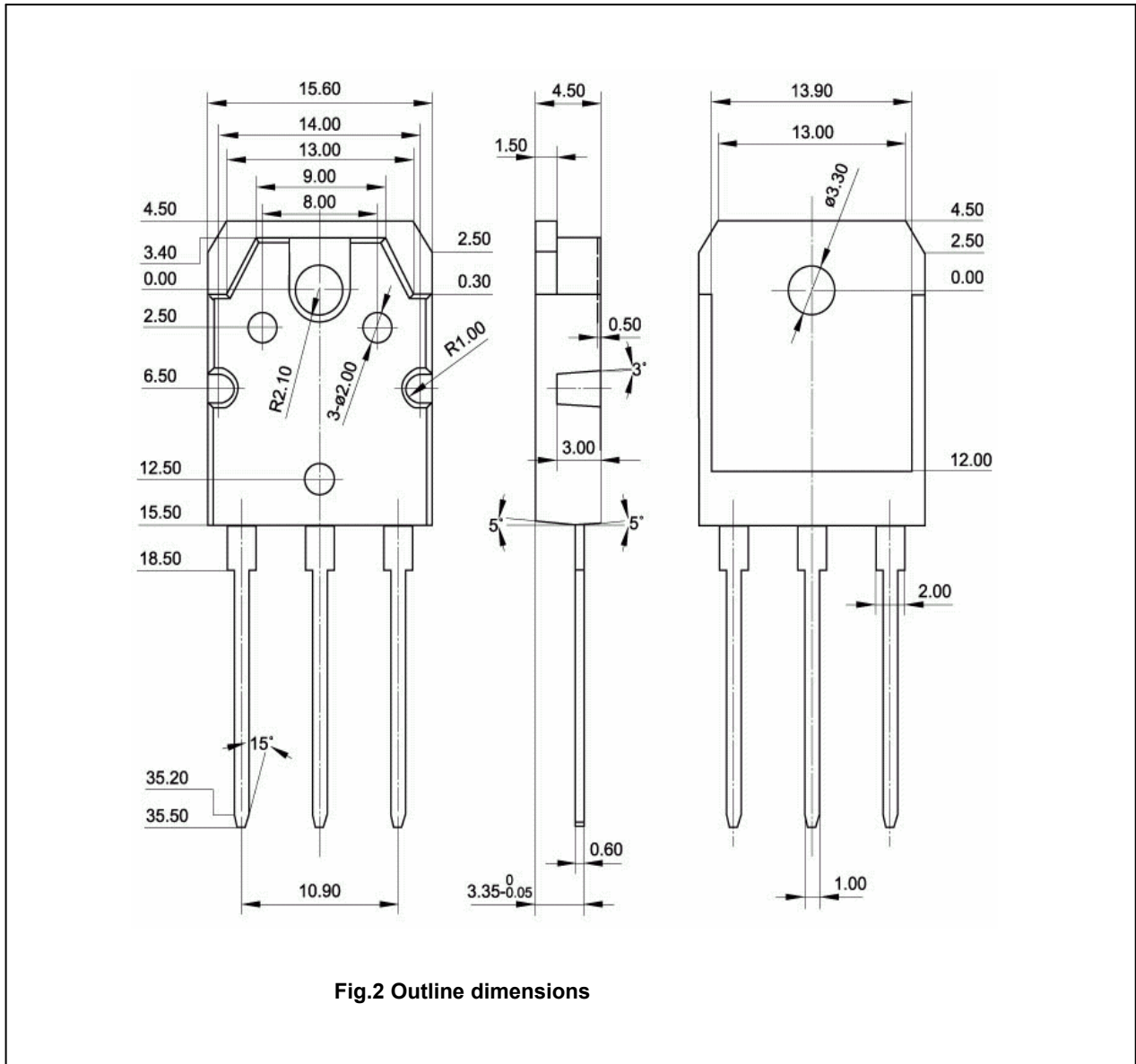


Fig.2 Outline dimensions