

Silicon NPN Power Transistors

2SC1904

DESCRIPTION

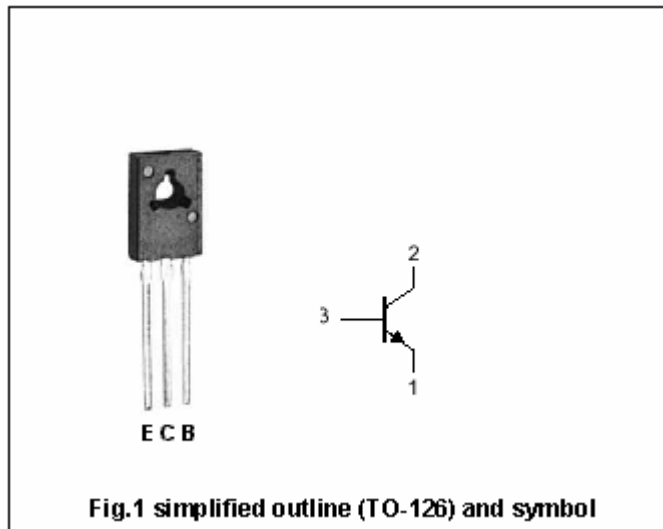
- With TO-126 package
- Complement to type 2SA899

APPLICATIONS

- For high frequency power amplification

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 _{CB0} | Collector-base voltage | Open emitter | 150 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 150 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I _C | Collector current (DC) | | 50mA | A |
| P _D | Total power dissipation | T _C =25°C | 1 | 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 =1mA; R _{BE} =∞ | 150 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =10μA; I _E =0 | 150 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =10μA; I _C =0 | 5 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =10mA; I _B =1mA | | | 0.5 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =10mA; I _B =1mA | | | 1.0 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =140V; I _E =0 | | | 1 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =4V; I _C =0 | | | 1 | μA |
| h _{FE} | DC current gain | I _C =10mA; V _{CE} =5V | 35 | | 500 | |
| C _{OB} | Output capacitance | I _E =0; V _{CB} =10V; f=1MHz | | 3 | | pF |
| f _T | Transition frequency | I _C =10mA; V _{CE} =5V | | 70 | | MHz |

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PACKAGE OUTLINE

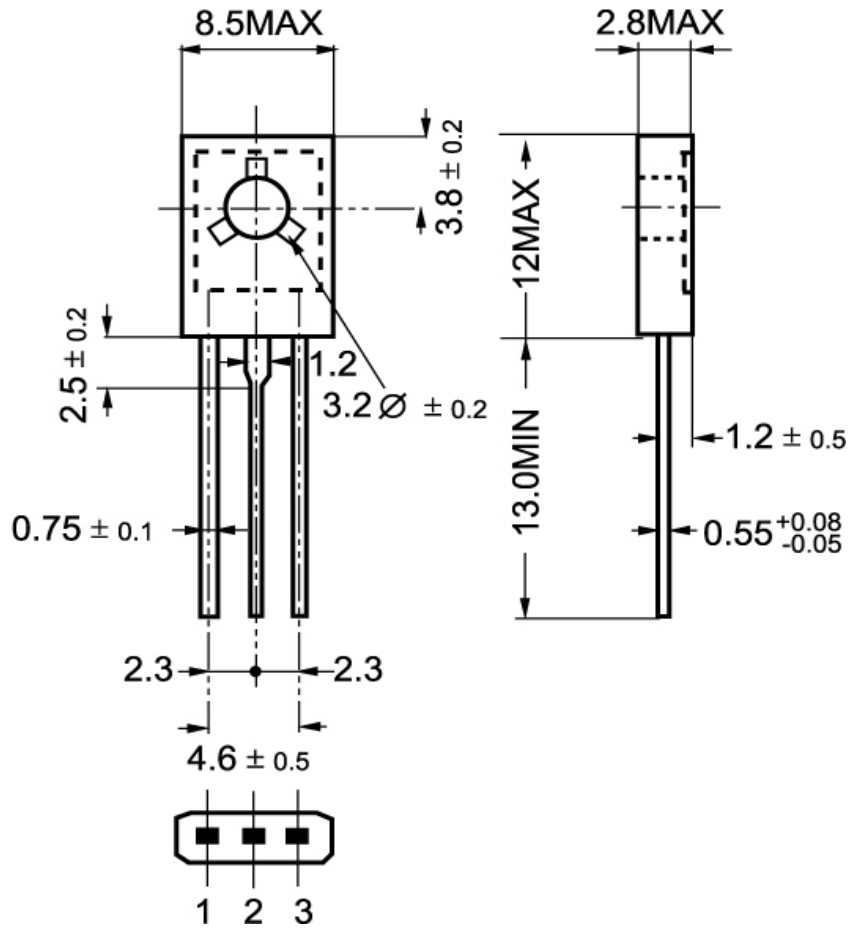


Fig.2 Outline dimensions