

Silicon PNP Power Transistors

BD190

DESCRIPTION

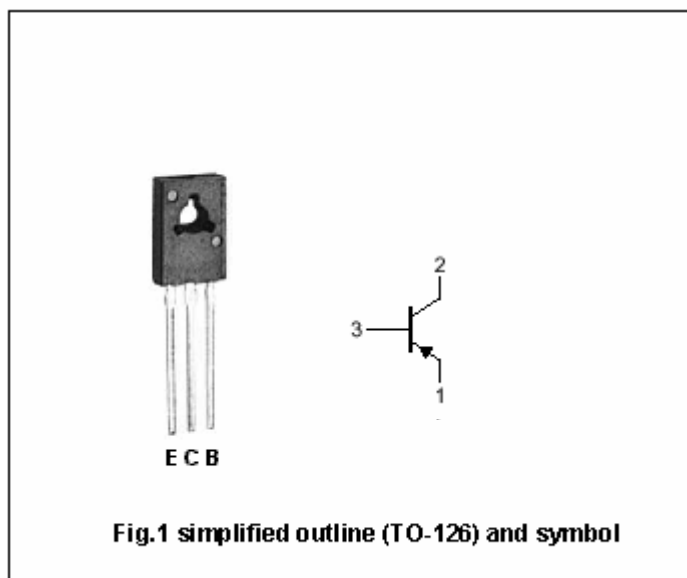
- With TO-126 package
- High current
- Complement to type BD189

APPLICATIONS

- For use in 5 to 10 watt audio amplifiers utilizing complementary or quasi complementary circuits.

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 | -70 | V |
| V _{CEO} | Collector-emitter voltage | Open base | -60 | V |
| V _{EBO} | Emitter -base voltage | Open collector | -5 | V |
| I _C | Collector current (DC) | | -4 | A |
| I _B | Base current | | -2 | A |
| P _t | Total power dissipation | T _{mb} ≤70°C | 40 | W |
| T _j | Junction temperature | | -65~150 | °C |
| T _{stg} | Storage temperature | | -65~150 | °C |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | VALUE | UNIT |
|---------------------|--------------------------------------|-------|------|
| R _{th j-a} | Thermal resistance, junction to case | 3.12 | °C/W |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|--|-----|------|------|------|
| V _{(SUS)CEO} | Collector-emitter sustaining voltage | I _C =-0.1A; I _B =0 | -60 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-2.0A; I _B =-0.2A | | | -1.0 | V |
| V _{BE} | Base-emitter on voltage | I _C =-2A; V _{CE} =-2V | | | -1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-70V; I _E =0 | | | -0.1 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-5V; I _C =0 | | | -1.0 | mA |
| h _{FE-1} | DC current gain | I _C =-0.5A; V _{CE} =-2V | 40 | | | |
| h _{FE-2} | DC current gain | I _C =-2A; V _{CE} =-2V | 15 | | | |
| f _T | Transition frequency | I _C =-1.0A; V _{CE} =-10V; f=1.0MHz | 2.0 | | | MHz |

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PACKAGE OUTLINE

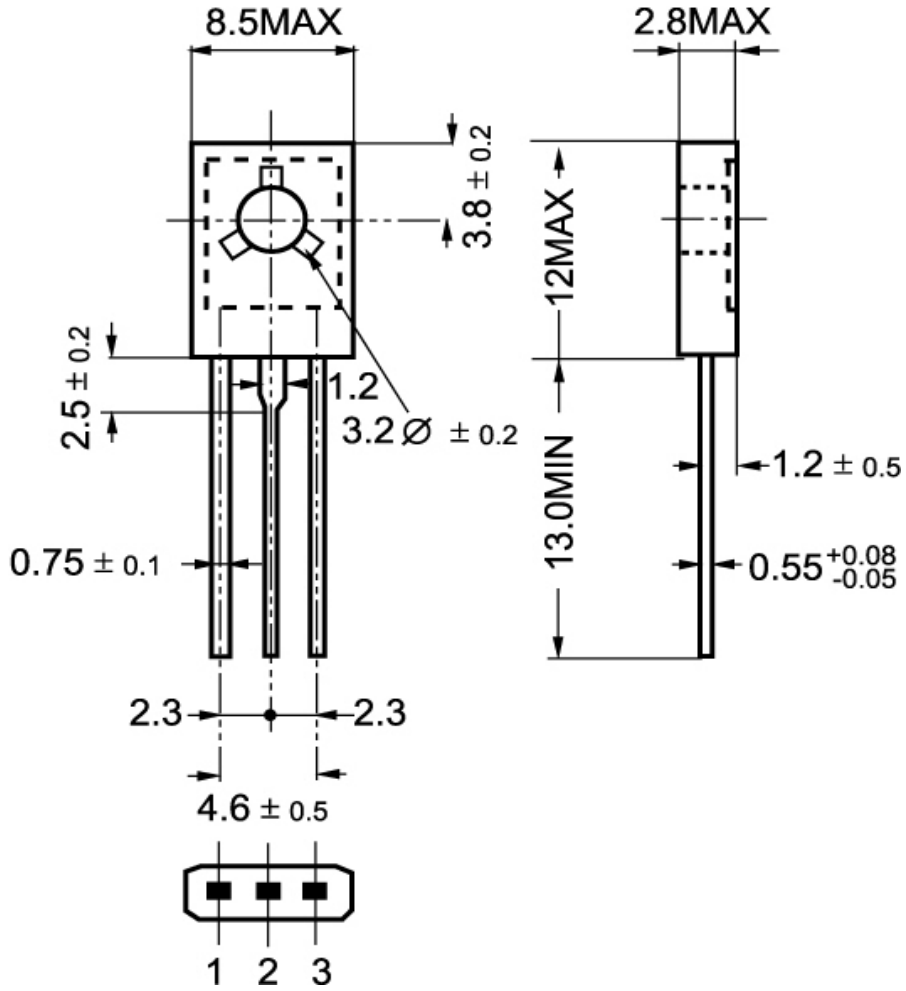


Fig.2 Outline dimensions