

Silicon NPN Power Transistors

2SD880

DESCRIPTION

www.dataSheet4U.com

- With TO-220C package
- Complement to type 2SB834
- Low collector saturation voltage

APPLICATIONS

- Designed for use in audio frequency power amplifier applications

PINNING

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

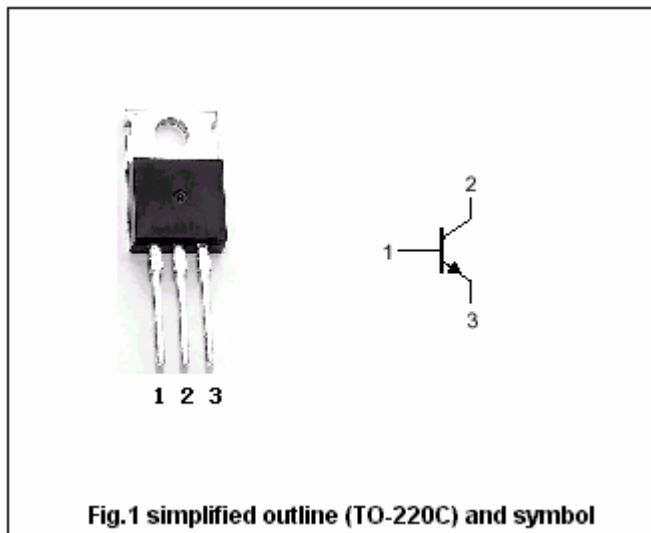


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | 60 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 60 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 7 | V |
| I _C | Collector current | | 3 | A |
| I _{CM} | Collector current-Peak | | 6 | A |
| I _B | Base current | | 0.5 | A |
| P _C | Collector dissipation | T _C =25°C | 30 | W |
| T _j | Junction temperature | | 150 | °C |
| T _{stg} | Storage temperature | | -50~150 | °C |

THERMAL CHARACTERISTICS

| SYMBOL | CHARACTERISTICS | MAX | UNIT |
|--------|-------------------------------------|------|------|
| Rθjc | Thermal resistance junction to case | 4.16 | °C/W |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|--|-----|------|-----|------|
| V _{(BR)CEO} | Collector-emitter breakdown voltage | I _C =50mA ; I _B =0 | 60 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1mA ; I _C =0 | 7 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =3A; I _B =0.3A | | | 1.0 | V |
| V _{BE} | Base-emitter on voltage | I _C =0.5A ; V _{CE} =5V | | | 1.0 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =60V; I _E =0 | | | 100 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =7V; I _C =0 | | | 100 | μA |
| h _{FE} | DC current gain | I _C =0.5A ; V _{CE} =5V | 60 | | 300 | |
| f _T | Transition frequency | I _C =0.5A ; V _{CE} =5V; f=1MHz | | 3 | | MHz |

Switching times

| | | | | | | |
|-----------------|--------------|--|--|--|-----|----|
| t _{on} | Turn-on time | I _C =10I _{B1} =-10I _{B2} =2A V _{CC} =30V PW=30μs | | | 1.2 | μs |
| t _s | Storage time | | | | 2.0 | μs |
| t _f | Fall time | | | | 1.1 | μs |

◆ h_{FE} Classifications

| O | Y | GR |
|--------|---------|---------|
| 60-120 | 100-200 | 150-300 |

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PACKAGE OUTLINE

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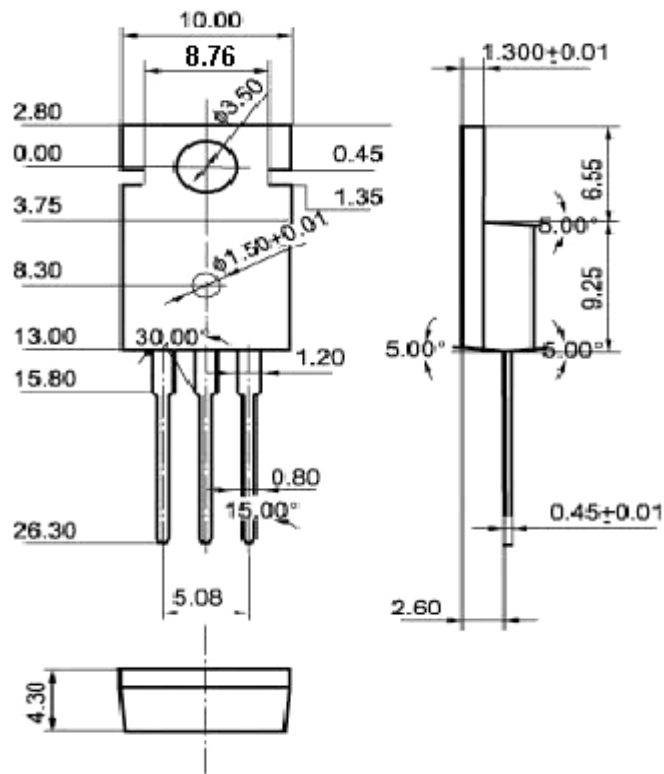


Fig.2 Outline dimensions (unindicated tolerance:±0.10mm)