

Silicon NPN Power Transistors

2SC4278

DESCRIPTION

- With TO-247 package
- Complement to type 2SA1633
- High current and high power capability

APPLICATIONS

- For audio output applications

PINNING

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

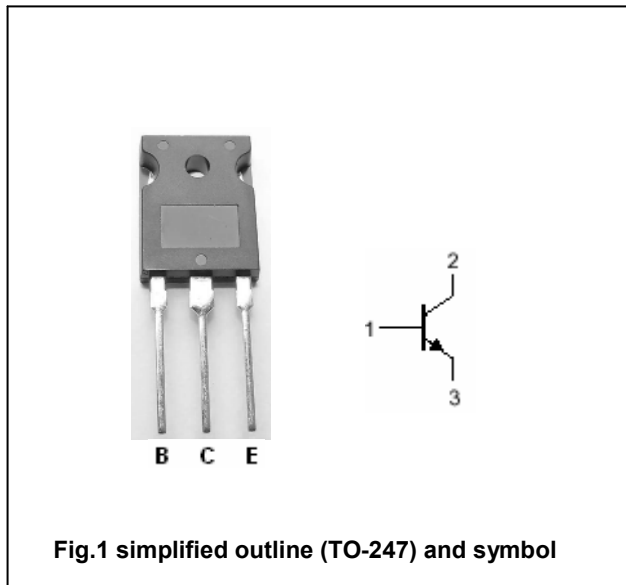


Fig.1 simplified outline (TO-247) and symbol

Absolute maximum ratings(Tc=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | 150 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 150 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 6 | V |
| I _C | Collector current (DC) | | 10 | A |
| P _D | Total power dissipation | T _C =25°C | 100 | 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 =25mA; I _B =0 | 150 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =5A ; I _B =0.5A | | | 1.5 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =5A ; I _B =0.5A | | | 2.0 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =150V; I _E =0 | | | 0.1 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =6V; I _C =0 | | | 0.1 | mA |
| h _{FE} | DC current gain | I _C =1A ; V _{CE} =5V | 60 | | 320 | |
| f _T | Transition frequency | I _C =1A ; V _{CE} =10V | | 20 | | MHz |

◆ h_{FE} Classifications

| D | E | F |
|--------|---------|---------|
| 60-120 | 100-200 | 160-320 |

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PACKAGE OUTLINE

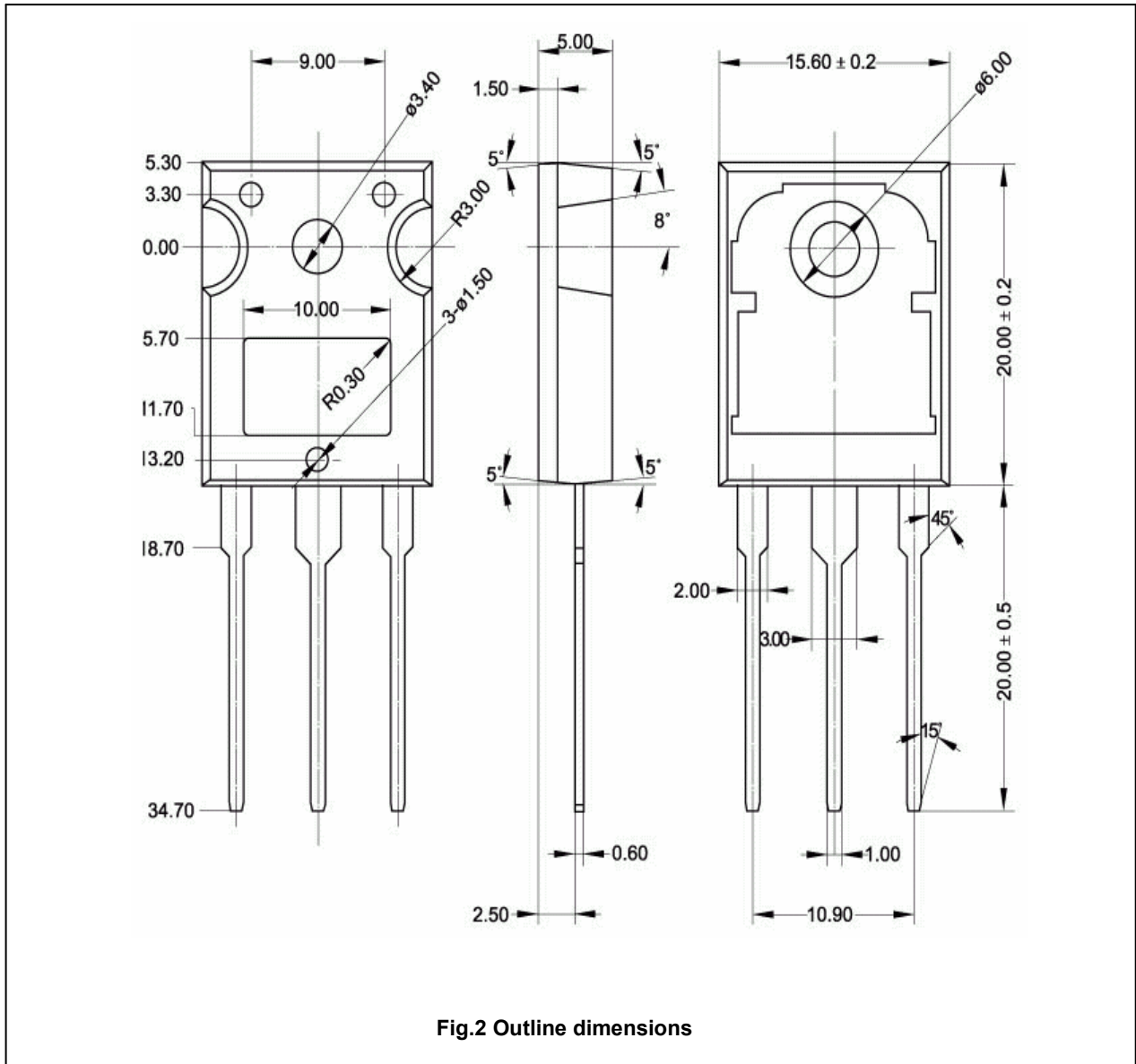


Fig.2 Outline dimensions