

Silicon NPN Power Transistors

2SC1929

DESCRIPTION

- With TO-220C package
- High V_{CEO}
- Large P_C

APPLICATIONS

- AF output for direct main operation TV

PINNING

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

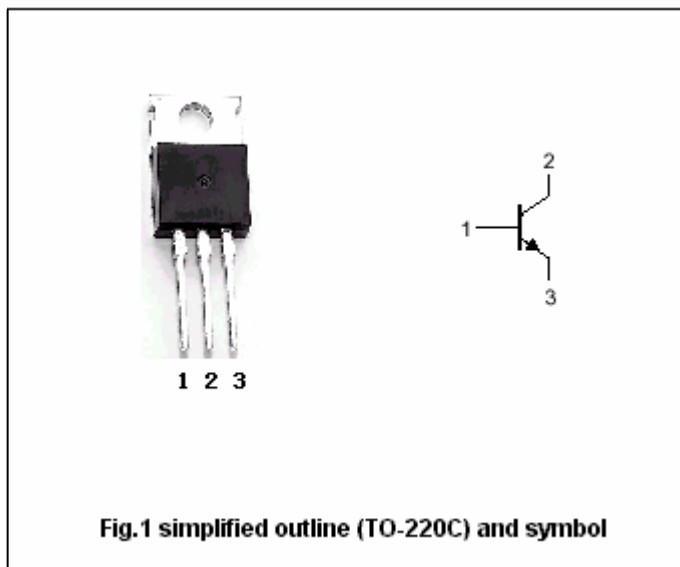


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings ($T_c=25^\circ C$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|---------------------------|------------------|---------|------------|
| V_{CBO} | Collector-base voltage | Open emitter | 300 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 300 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 6 | V |
| I_C | Collector current | | 0.4 | A |
| I_{CM} | Collector current-Peak | | 1 | A |
| P_C | Total power dissipation | $T_c=25^\circ C$ | 25 | W |
| T_j | Junction temperature | | 150 | $^\circ C$ |
| T_{stg} | Storage temperature | | -55~150 | $^\circ C$ |

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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 =10mA ; I _B =0 | 300 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =5mA ; I _C =0 | 6 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =500mA ; I _B =50mA | | | 2.0 | V |
| V _{BEsat} | Base-emitter on voltage | I _C =0.1A ; V _{CE} =5V | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =300V ; I _E =0 | | | 10 | μA |
| h _{FE-1} | DC current gain | I _C =0.1A ; V _{CE} =5V | 35 | | 330 | |
| h _{FE-2} | DC current gain | I _C =0.3A ; V _{CE} =5V | 30 | | | |
| f _T | Transition frequency | I _C =0.1A ; V _{CE} =5V | | 80 | | MHz |

◆ h_{FE-1} Classifications

| S | R | Q | P |
|-------|--------|---------|---------|
| 35-70 | 60-120 | 100-200 | 165-330 |

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PACKAGE OUTLINE

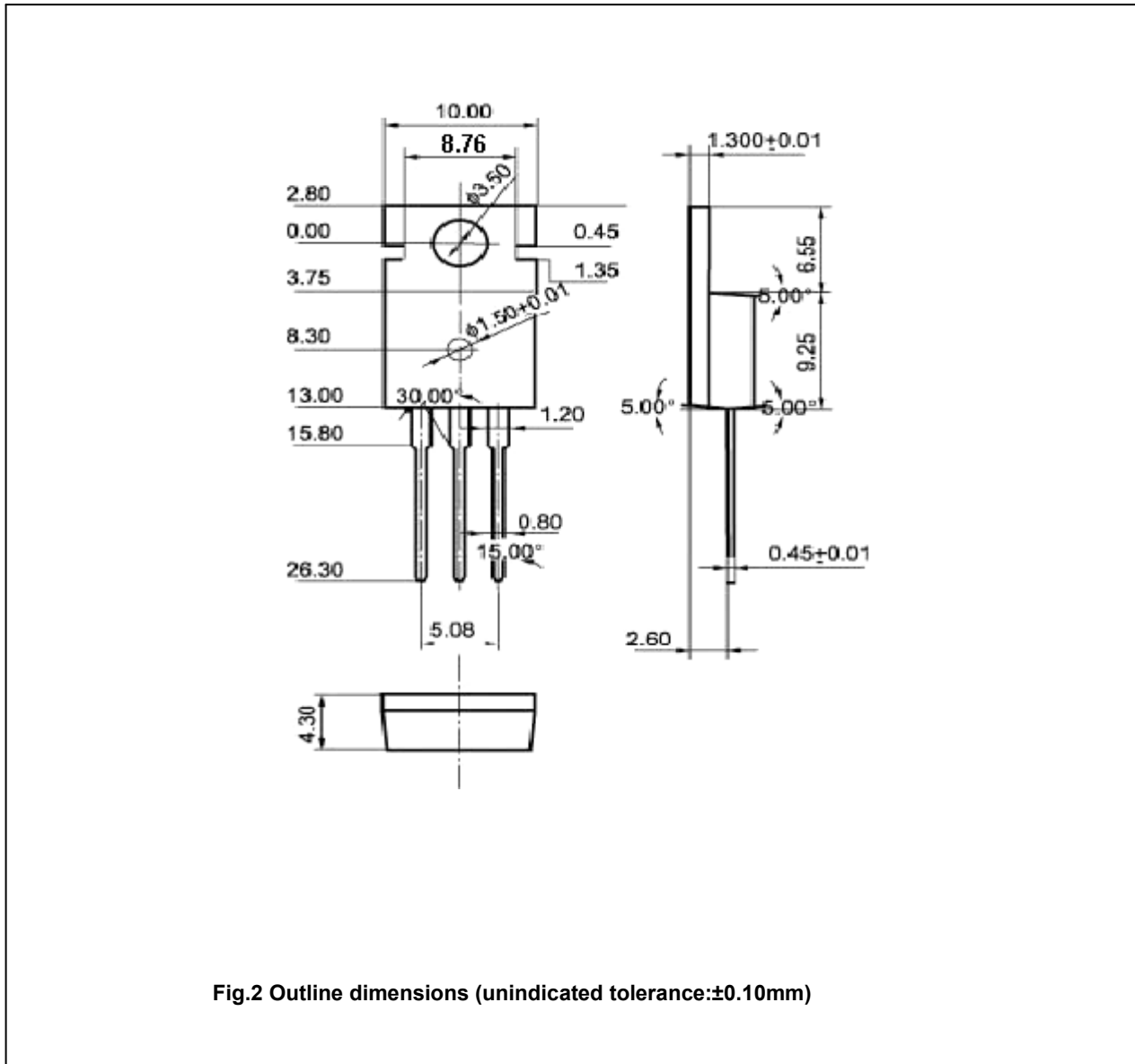


Fig.2 Outline dimensions (unindicated tolerance: $\pm 0.10\text{mm}$)