

Silicon NPN Power Transistors

2SC2270

DESCRIPTION

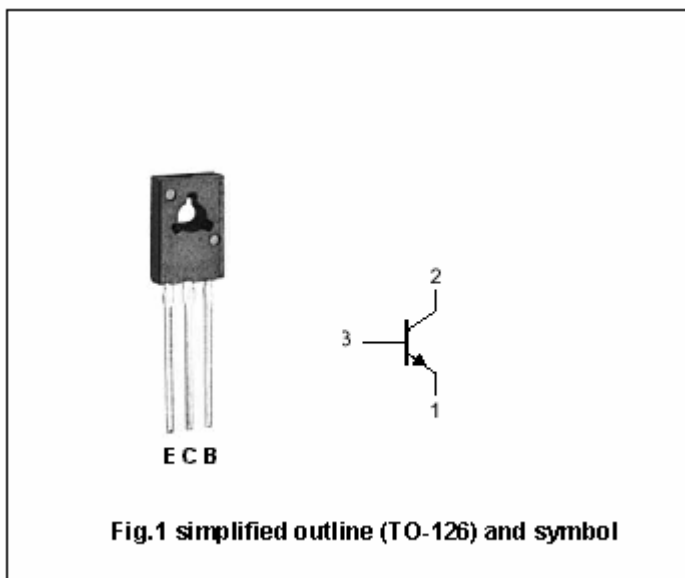
- With TO-126 package
- Low collector saturation voltage
- High collector power dissipation

APPLICATIONS

- Strobo flash applications
- Medium power amplifier applications

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 | 50 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 20 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 8 | V |
| I _C | Collector current (DC) | | 5 | A |
| I _{CM} | Collector current-peak | | 8 | A |
| I _E | Emitter current (DC) | | -5 | A |
| I _{EM} | Emitter current-peak | | -8 | A |
| P _C | Total power dissipation | T _a =25°C | 1.0 | W |
| | | T _C =25°C | 10 | |
| 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 =10mA ; I _B =0 | 20 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1mA ; I _C =0 | 8 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =4A; I _B =0.1A | | | 1.0 | V |
| V _{BE} | Base-emitter voltage | I _C =4A ; V _{CE} =2V | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =40V; I _E =0 | | | 0.1 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =8V; I _C =0 | | | 0.1 | μA |
| h _{FE-1} | DC current gain | I _C =0.5A ; V _{CE} =2V | 140 | | 450 | |
| h _{FE-2} | DC current gain | I _C =4A ; V _{CE} =2V | 70 | | | |
| f _T | Transition frequency | I _C =0.5A ; V _{CE} =2V | | 100 | | MHz |
| C _{OB} | Collector output capacitance | I _E =0;f=1MHz ; V _{CB} =10V | | 40 | | pF |

◆ h_{FE-1} Classifications

| A | B | C |
|---------|---------|---------|
| 140-240 | 200-330 | 300-450 |

PACKAGE OUTLINE

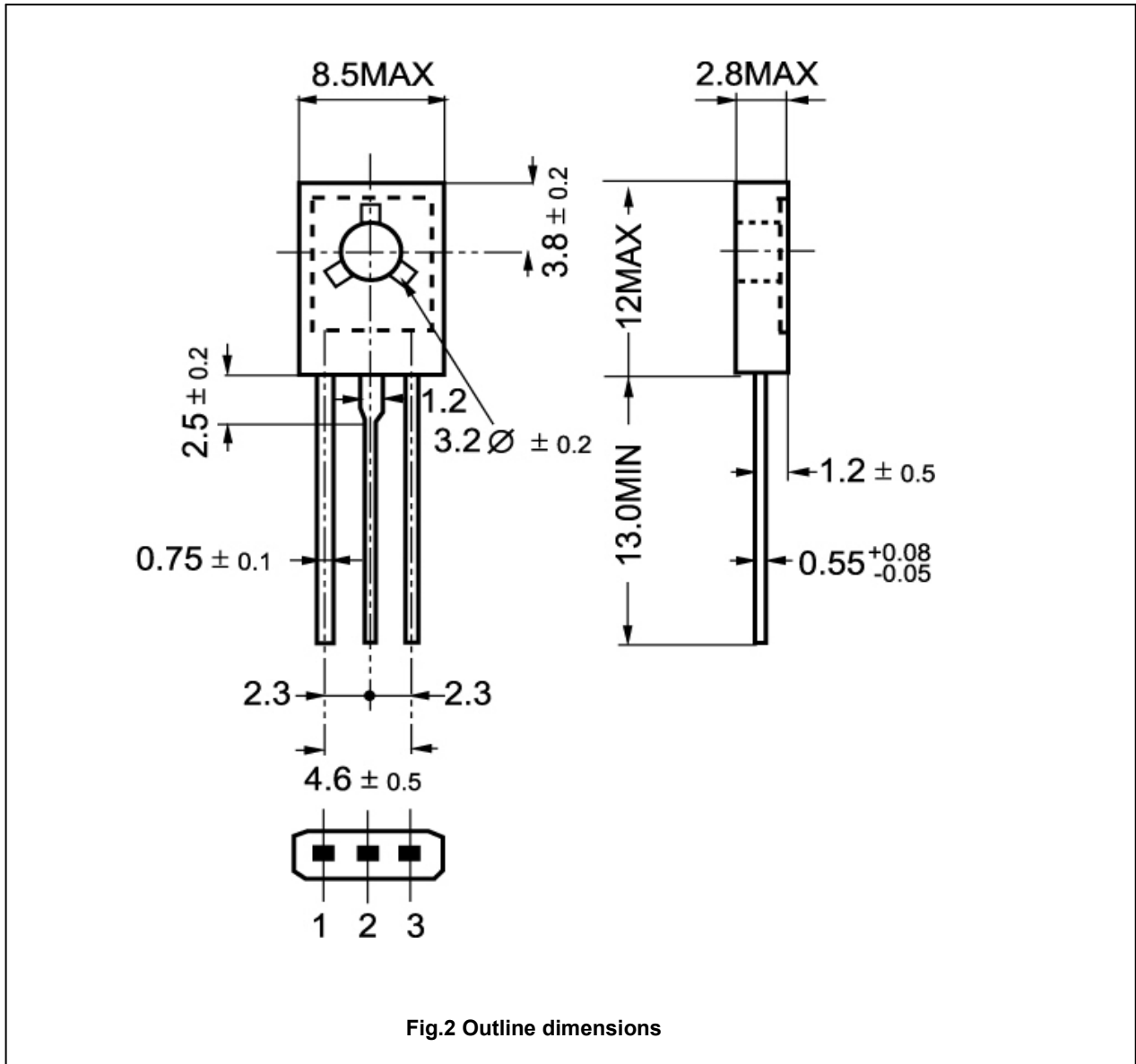


Fig.2 Outline dimensions