

Silicon NPN Power Transistors

2SC1624 2SC1625

DESCRIPTION

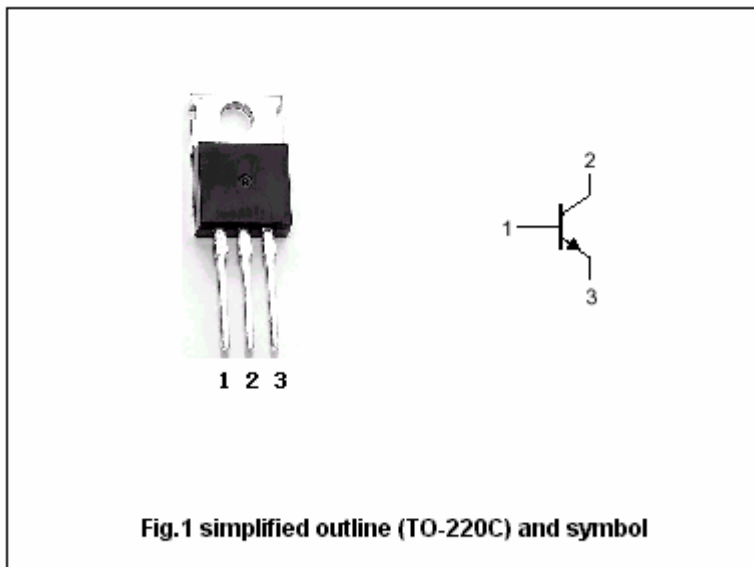
- With TO-220 package
- Complement to type 2SA814/815
- High breakdown voltage

APPLICATIONS

- Medium power amplifier applications
- Driver stage amplifier applications

PINNING

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



Absolute maximum ratings (Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-----------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | 2SC1624 | 120 | V |
| | | 2SC1625 | 100 | |
| V _{CEO} | Collector-emitter voltage | 2SC1624 | 120 | V |
| | | 2SC1625 | 100 | |
| V _{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I _C | Collector current | | 1 | A |
| I _E | Emitter current | | -1 | A |
| P _C | Collector power dissipation | T _C =25°C | 15 | 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 | 2SC1624 | I _C =10mA; I _B =0 | 120 | | | V |
| | | 2SC1625 | | 100 | | | |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1mA; I _C =0 | 5 | | | V | |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =500mA; I _B =50mA | | | 0.5 | V | |
| V _{BE} | Base-emitter on voltage | I _C =500mA; V _{CE} =5V | | | 1.0 | V | |
| I _{CBO} | Collector cut-off current | V _{CB} =50V; I _E =0 | | | 1.0 | μA | |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | | | 1.0 | μA | |
| h _{FE-1} | DC current gain | I _C =150mA; V _{CE} =5V | 70 | | 240 | | |
| h _{FE-2} | DC current gain | I _C =500mA; V _{CE} =5V | 40 | | | | |
| C _{OB} | Output capacitance | I _E =0; V _{CB} =10V; f=1MHz | | 20 | | pF | |
| f _T | Transition frequency | I _C =150mA; V _{CE} =5V | | 30 | | MHz | |

◆ h_{FE-1} Classifications

| O | Y |
|--------|---------|
| 70-140 | 120-240 |

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PACKAGE OUTLINE

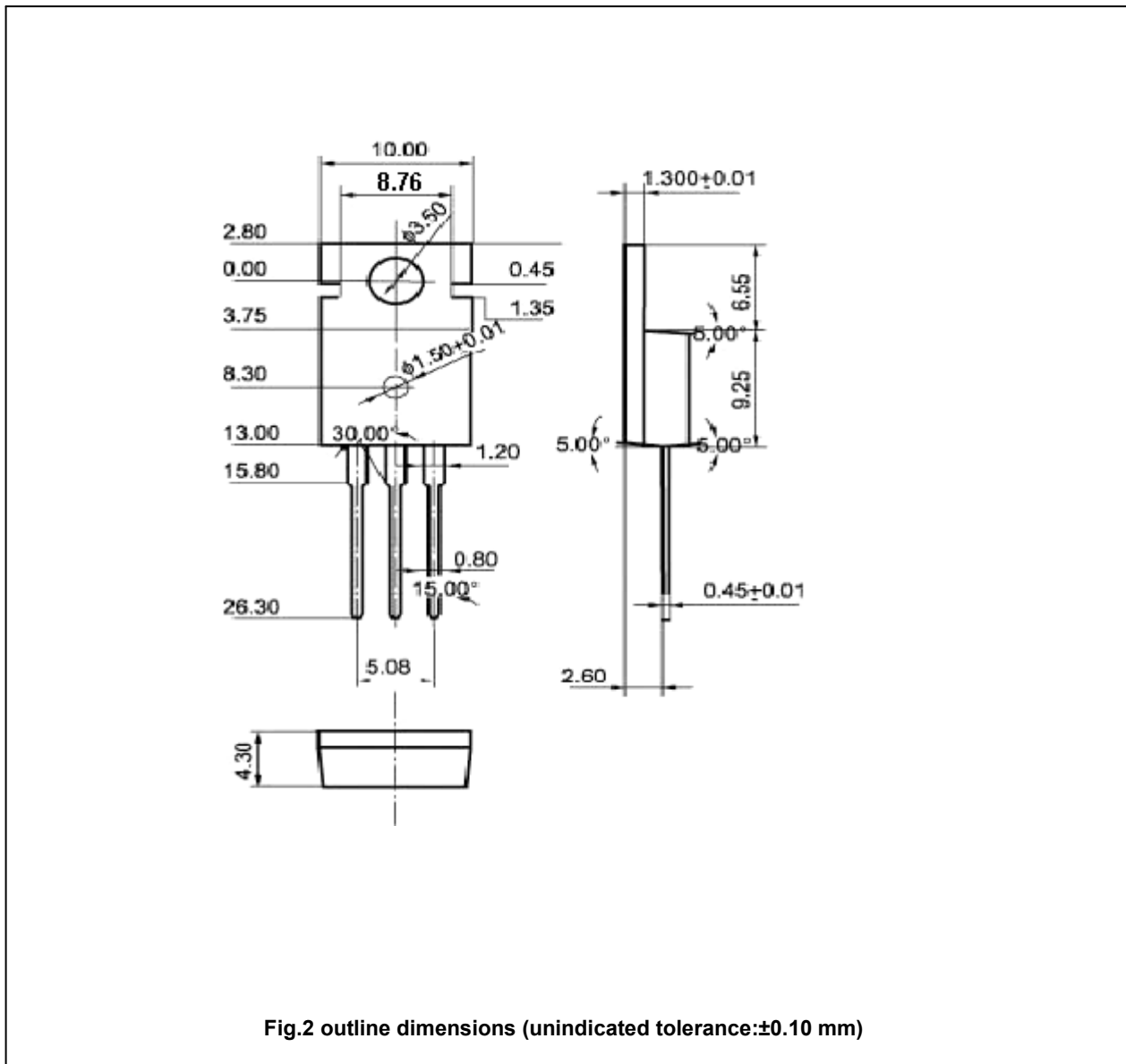


Fig.2 outline dimensions (unindicated tolerance: ± 0.10 mm)