

Silicon NPN Power Transistors

2SD1638

DESCRIPTION

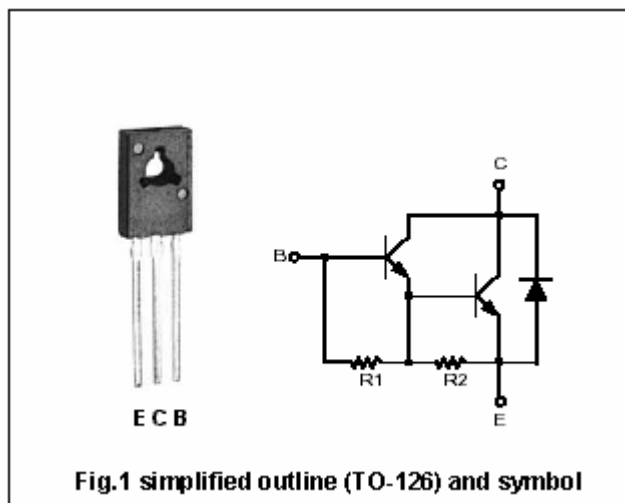
- With TO-126 package
- DARLINGTON

APPLICATIONS

- For low frequency and power amplifier applications

PINNING(see Fig.2)

| 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 | 100 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 100 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I _C | Collector current (DC) | | 2 | A |
| P _D | Total power dissipation | T _C =25°C | 10 | 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 | 100 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =1.0A ; I _B =1mA | | | 1.5 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =1.0A ; I _B =1mA | | | 2.0 | V |
| I _{CEO} | Collector cut-off current | V _{CE} =100V; I _B =0 | | | 0.5 | mA |
| I _{CBO} | Collector cut-off current | V _{CB} =100V; I _E =0 | | | 10 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | | | 3 | mA |
| h _{FE} | DC current gain | I _C =1A ; V _{CE} =2V | 1000 | | 10000 | |
| C _{OB} | Collector output capacitance | f=0.1MHz ; V _{CB} =10V | | 25 | | pF |

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PACKAGE OUTLINE

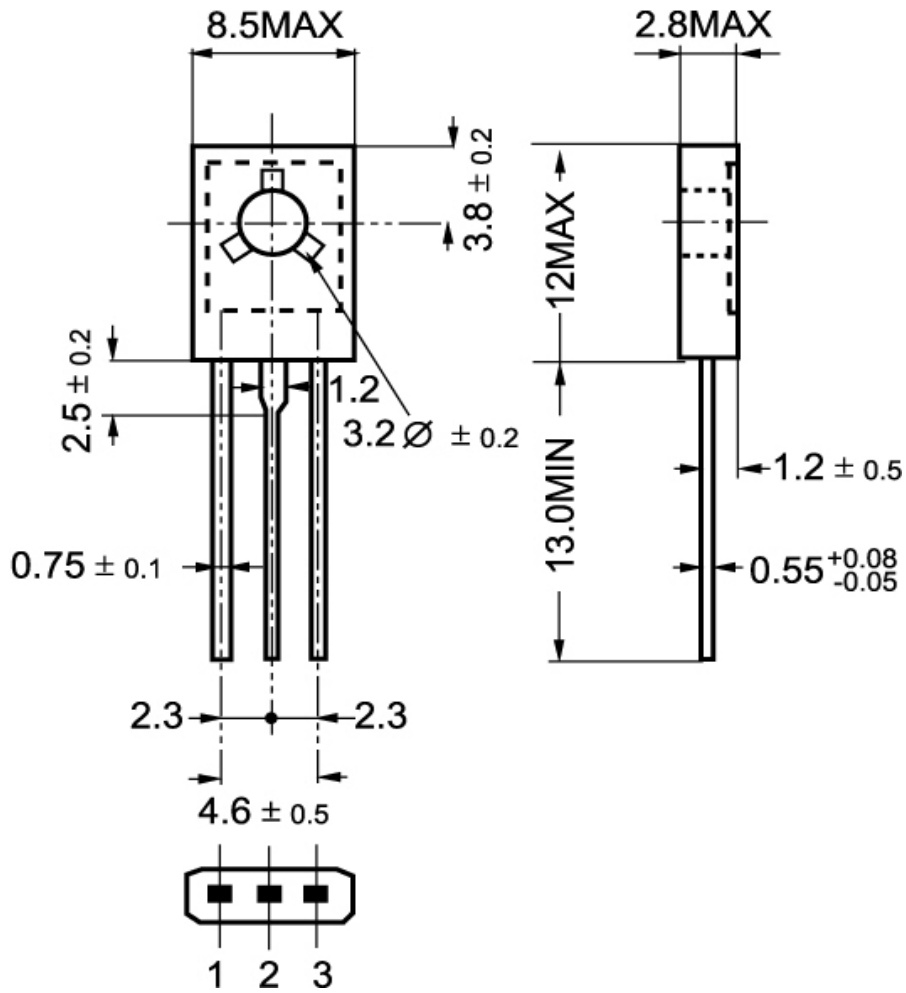


Fig.2 Outline dimensions