

Silicon PNP Power Transistors

2SB1257

DESCRIPTION

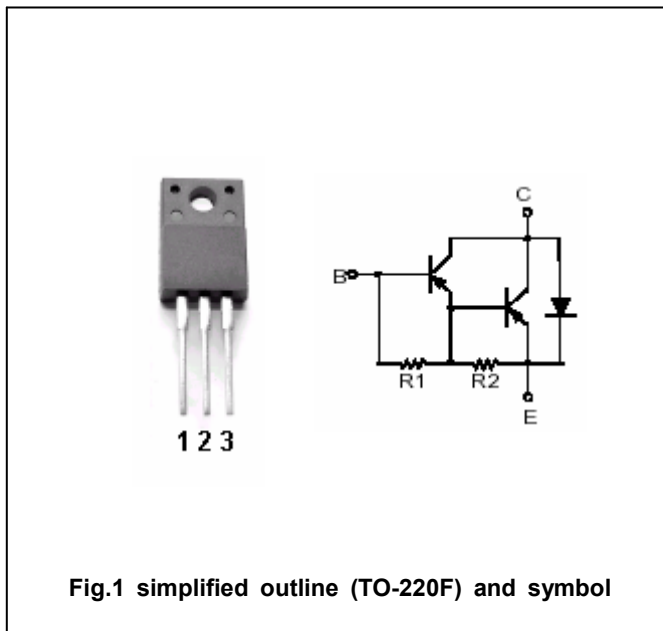
- With TO-220F package
- Complement to type 2SD2014
- High DC current gain
- DARLINGTON

APPLICATIONS

- Driver for solenoid ,relay and motor and general purpose

PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Base |
| 2 | Collector |
| 3 | Emitter |



Absolute maximum ratings (Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | -60 | V |
| V _{CEO} | Collector-emitter voltage | Open base | -60 | V |
| V _{EBO} | Emitter-base voltage | Open collector | -6 | V |
| I _C | Collector current | | -4 | A |
| I _{CM} | Collector current-peak | | -6 | A |
| I _B | Base current | | -1 | A |
| P _C | Collector dissipation | T _C =25°C | 25 | W |
| T _j | Junction temperature | | 150 | °C |
| T _{stg} | Storage temperature | | -55~150 | °C |

Silicon PNP Power Transistors

2SB1257

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 | -60 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-3A; I _B =-6mA | | | -1.5 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =-3A; I _B =-6mA | | | -2.0 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-60V; I _E =0 | | | -10 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-6V; I _C =0 | | | -10 | μA |
| h _{FE} | DC current gain | I _C =-3A ; V _{CE} =-4V | 2000 | | | |
| f _T | Transition frequency | I _E =0.2A ; V _{CE} =-12V | | 150 | | MHz |
| C _{OB} | Collector output capacitance | I _E =0; f=1MHz; V _{CB} =-10V | | 75 | | pF |

Switching times

| | | | | | | |
|-----------------|--------------|--|--|-----|--|----|
| t _{on} | Turn-on time | I _C =-3A; I _{B1} =-I _{B2} =-10mA V _{CC} =-30V , R _L =10Ω | | 0.4 | | μs |
| t _s | Storage time | | | 0.8 | | μs |
| t _f | Fall time | | | 0.6 | | μs |

Silicon PNP Power Transistors

2SB1257

PACKAGE OUTLINE

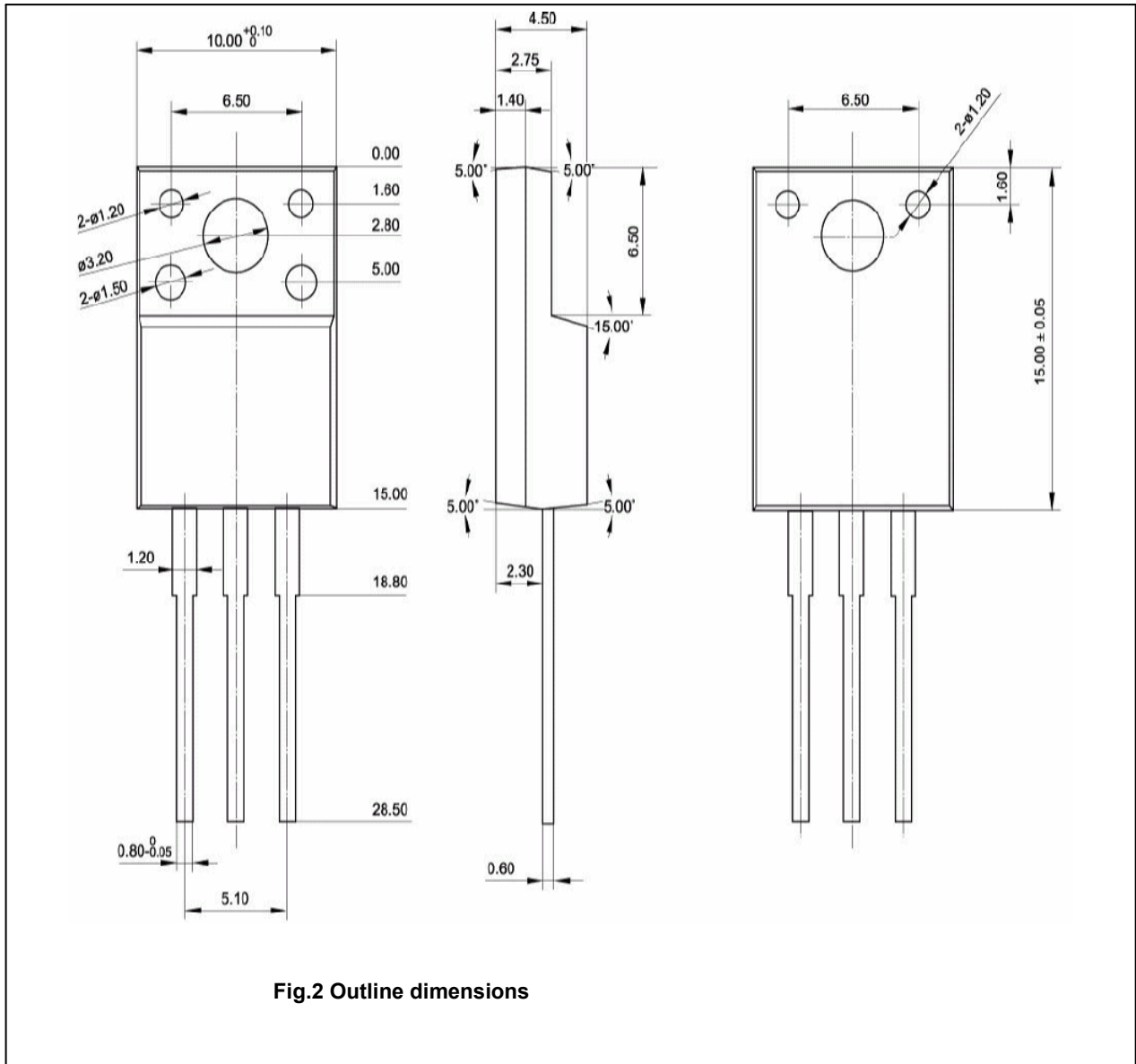


Fig.2 Outline dimensions