

Silicon NPN Power Transistors

2SD1391

DESCRIPTION

- With TO-3PN package
- High speed switching
- High voltage, high reliability
- Wide area of safe operation

APPLICATIONS

- For horizontal deflection output applications

PINNING

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

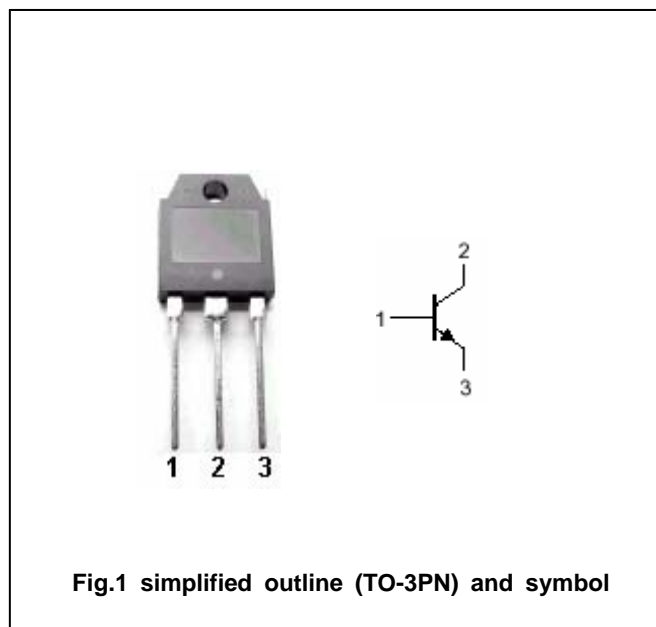


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings (Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|------------------------|---------|------------------|
| V_{CBO} | Collector-base voltage | Open emitter | 1500 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 700 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 6 | V |
| I_C | Collector current (DC) | | 5 | A |
| I_{CM} | Collector current (Pulse) | | 17 | A |
| P_C | Collector power dissipation | $T_C=25^\circ\text{C}$ | 100 | W |
| T_j | Junction temperature | | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage temperature | | -55~150 | $^\circ\text{C}$ |

Silicon NPN Power Transistors

2SD1391

CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|-----------------------------------------------------------------------|-----|------|-----|------|
| V _{CEO(SUS)} | Collector-emitter sustaining voltage | I _C =100mA; I _B =0 | 700 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1mA; I _C =0 | 6 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =4.5A; I _B =2A | | | 2.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =4.5A; I _B =2A | | | 1.3 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =750V; I _E =0 | | | 50 | μ A |
| | | V _{CB} =1500V; I _E =0 | | | 1.0 | mA |
| h _{FE} | DC current gain | I _C =3A; V _{CE} =10V | 4 | | 15 | |
| t _f | Fall time | I _C =4A I _{Bend} =1.5A, L _B =10 μ H | | | 1.0 | μ s |
| t _s | Storage time | | | | 11 | μ s |

Silicon NPN Power Transistors

2SD1391

PACKAGE OUTLINE

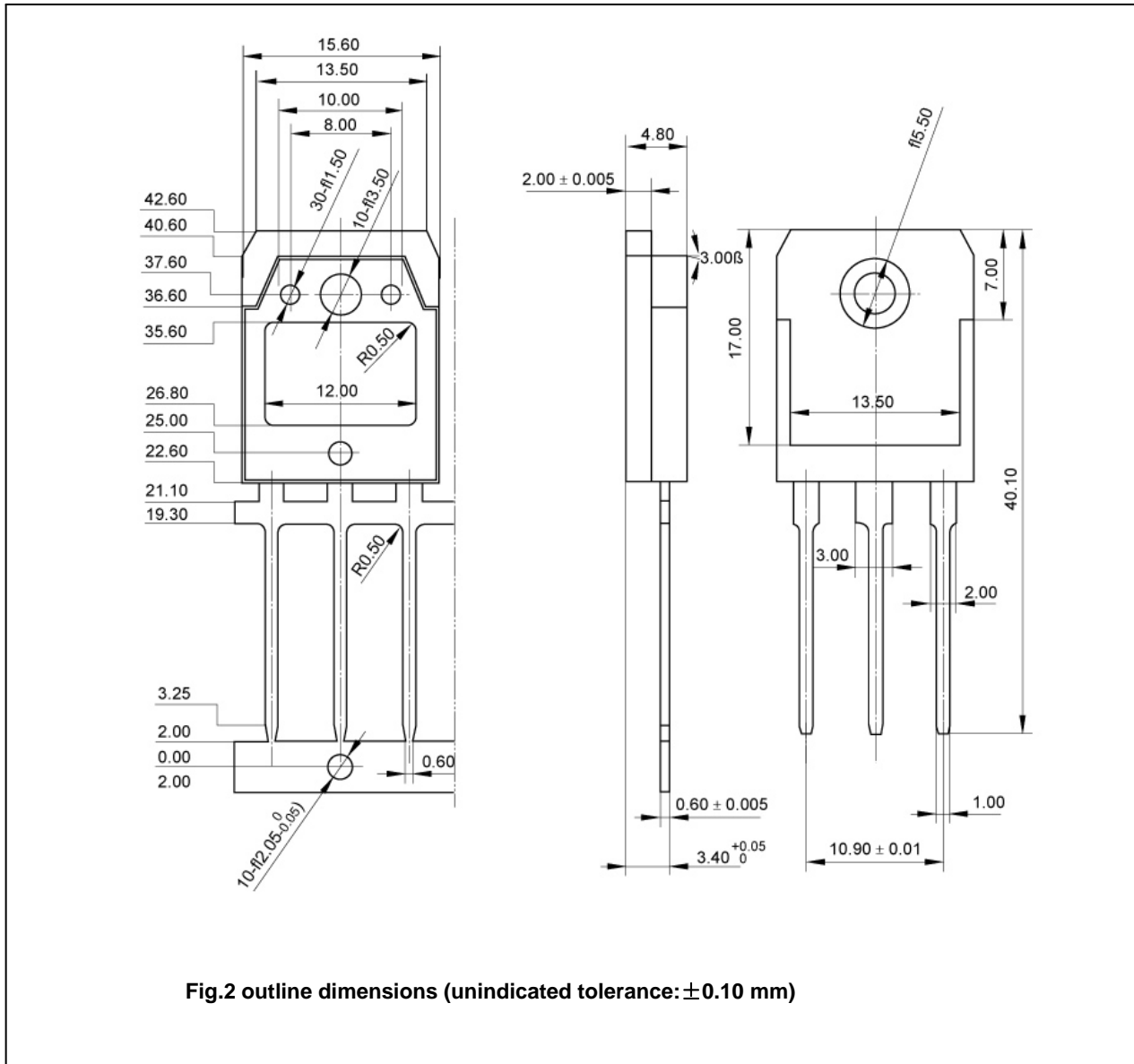


Fig.2 outline dimensions (unindicated tolerance: ±0.10 mm)