

Silicon NPN Power Transistors

2N6322

DESCRIPTION

- With TO-3 package
- High current and high power capability
- Low collector saturation voltage

APPLICATIONS

- For use in high current ,high power applications

PINNING

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

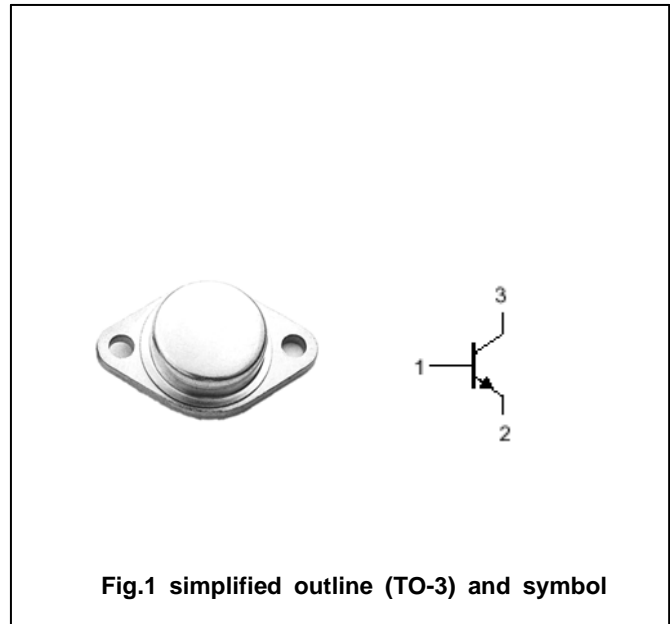


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a = ^\circ\text{C}$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|---------------------------|--------------------------|---------|------------------|
| V_{CBO} | Collector-base voltage | Open emitter | 300 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 200 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I_C | Collector current | | 30 | A |
| I_B | Base current | | 10 | A |
| P_D | Total Power Dissipation | $T_C = 25^\circ\text{C}$ | 200 | W |
| T_j | Junction temperature | | 200 | $^\circ\text{C}$ |
| T_{stg} | Storage temperature | | -65~200 | $^\circ\text{C}$ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | VALUE | UNIT |
|---------------|-------------------------------------|-------|---------------------------|
| $R_{th\ j-c}$ | Thermal resistance junction to case | 0.5 | $^\circ\text{C}/\text{W}$ |

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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 =30mA ; I _B =0 | 200 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =2m A ; I _E =0 | 300 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =2m A ; I _C =0 | 5 | | | V |
| V _{CEsat-1} | Collector-emitter saturation voltage | I _C =20A ; I _B =2A | | | 1.5 | V |
| V _{CEsat-2} | Collector-emitter saturation voltage | I _C =30A ; I _B =6A | | | 3.0 | V |
| V _{BE} | Base-emitter on voltage | I _C =30A ; V _{CE} =5V | | | 2.5 | V |
| I _{CEO} | Collector cut-off current | V _{CE} =100V ; I _B =0 | | | 2.0 | mA |
| I _{CES} | Collector cut-off current | V _{CE} =300V ; V _{BE} =0 | | | 20 | μ A |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V ; I _C =0 | | | 20 | μ A |
| h _{FE-1} | DC current gain | I _C =5A ; V _{CE} =5V | 40 | | 150 | |
| h _{FE-2} | DC current gain | I _C =20A ; V _{CE} =5V | 12 | | | |
| h _{FE-3} | DC current gain | I _C =30A ; V _{CE} =5V | 6 | | | |
| f _T | Transition frequency | I _C =1A ; V _{CE} =10V | 10 | | | MHz |

PACKAGE OUTLINE

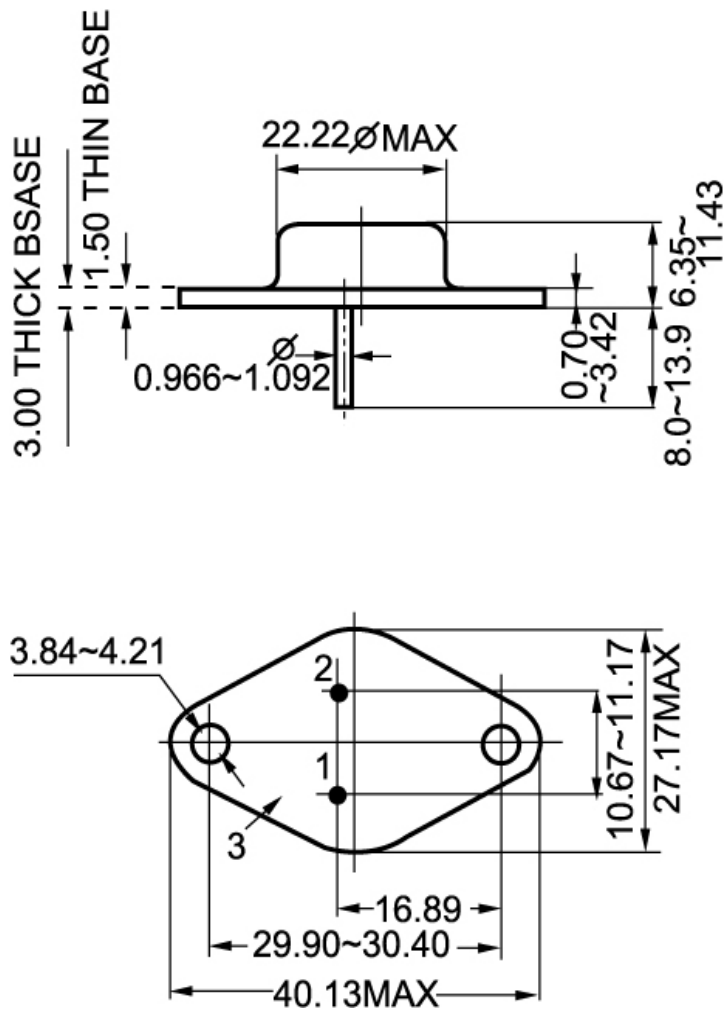


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.10\text{mm}$)