# Silicon NPN Power Transistors 2N3234

**DESCRIPTION**

·With TO-3 package
·Excellent safe operating area
·Low collector saturation voltage

**APPLICATIONS**

·For audio amplifier and power switching applications

**PINNING**

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

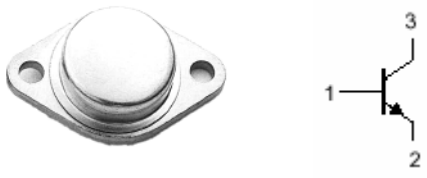


**Fig.1 simplified outline (TO-3) and symbol**

**ABSOLUTE MAXIMUM RATINGS(Ta=25□)**

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|---|---|---|---|---|
| $V_{CBO}$ | Collector-base voltage | Open emitter | 160 | V |
| $V_{CEO}$ | Collector-emitter voltage | Open base | 160 | V |
| $V_{EBO}$ | Emitter-base voltage | Open collector | 7 | V |
| $I_C$ | Collector current | | 7.5 | A |
| $P_C$ | Collector power dissipation | $T_C$=25□ | 115 | W |
| $T_j$ | Junction temperature | | 150 | □ |
| $T_{stg}$ | Storage temperature | | -65~200 | □ |

**THERMAL CHARACTERISTICS**

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $R_{(th)\,jc}$ | Thermal resistance junction to case | 1.17 | □/W |

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**CHARACTERISTICS**

**Tj=25□ unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage | $I_C$=30mA ;$I_B$=0 | 160 | | | V |
| $V_{CE(sat)}$ | Collector-emitter saturation voltage | $I_C$=5A ;$I_B$=0.5A | | | 1.0 | V |
| $V_{BE(on)}$ | Base-emitter on voltage | $I_C$=3A ; $V_{CE}$=4V | | | 1.5 | V |
| $I_{CEO}$ | Collector cut-off current | $V_{CE}$=80V; $I_B$=0 | | | 0.7 | mA |
| $I_{CBO}$ | Collector cut-off current | $V_{CB}$=160V; $I_E$=0 | | | 0.1 | mA |
| $I_{EBO}$ | Emitter cut-off current | $V_{EB}$=7V; $I_C$=0 | | | 0.1 | mA |
| $h_{FE}$ | DC current gain | $I_C$=5A ; $V_{CE}$=10V | 18 | | 55 | |

**PACKAGE OUTLINE**

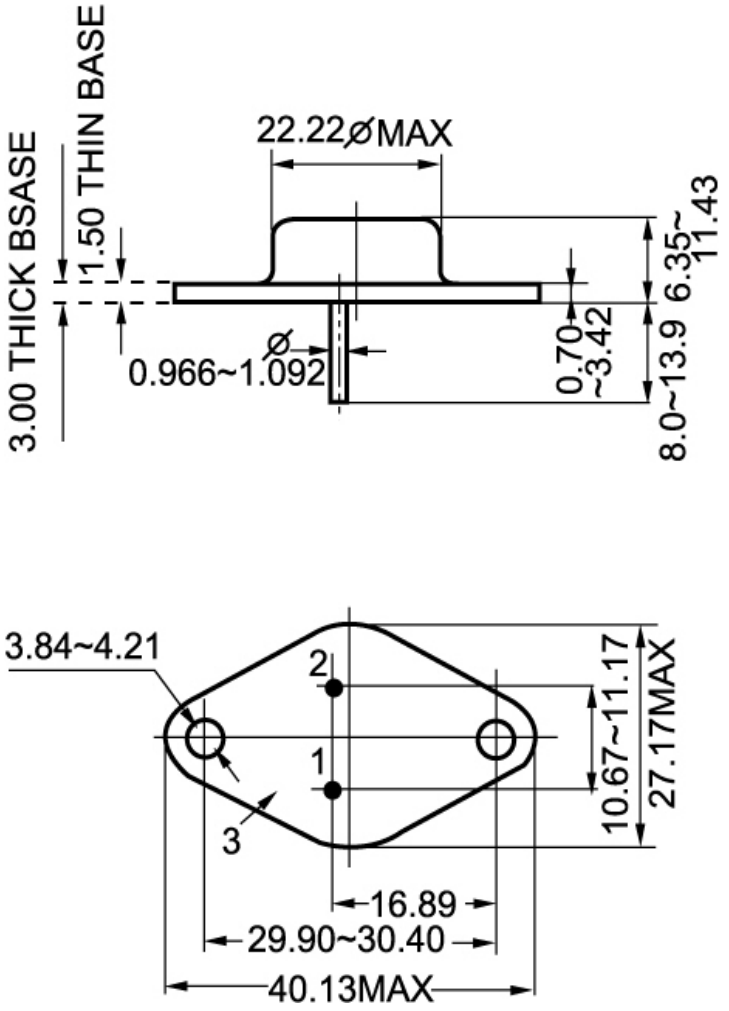


**Fig.2 outline dimensions (unindicated tolerance:±0.1mm)**