# Silicon NPN Power Transistors BU908

## DESCRIPTION

·With TO-3PN package
·High voltage
·High speed switching

## APPLICATIONS

·For color TV horizontal deflection circuits.

**PINNING**

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

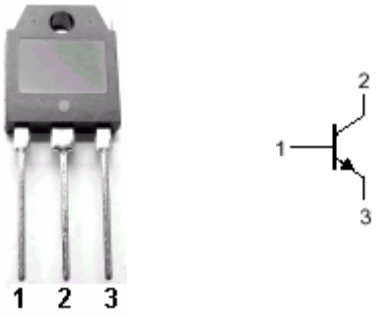



**Fig.1 simplified outline (TO-3PN) and symbol**

## Absolute maximum ratings (Ta=25□)

| 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 | 7 | V |
| $I_C$ | Collector current | | 8 | A |
| $P_T$ | Total power dissipation | $T_C$=25□ | 125 | W |
| $T_j$ | Junction temperature | | 150 | □ |
| $T_{stg}$ | Storage temperature | | -65~150 | □ |

## THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| $R_{th\ j\text{-}c}$ | Thermal resistance junction case | 1.0 | □/W |

## CHARACTERISTICS

**Tj=25□ 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 | $I_E$=10mA; $I_C$=0; | 7 | | | V |
| $V_{CEsat}$ | Collector-emitter saturation voltage | $I_C$=3.2A;$I_B$=0.8A | | | 2.0 | V |
| $V_{BEsat}$ | Base-emitter saturation voltage | $I_C$=3.2A;$I_B$=0.8A | | | 1.3 | V |
| $I_{CBO}$ | Collector cut-off current | $V_{CB}$=1500V;$I_E$=0 | | | 1.0 | mA |
| $I_{EBO}$ | Emitter cut-off current | $V_{EB}$=5V;$I_C$=0 | | | 0.1 | mA |
| $h_{FE}$ | DC current gain | $I_C$=1.5A ; $V_{CE}$=5V | 8 | | | |
| $f_T$ | Transition frequency | $I_E$=0 ; $V_{CB}$=10V;f=1MHz | | 7 | | MHz |

**PACKAGE OUTLINE**

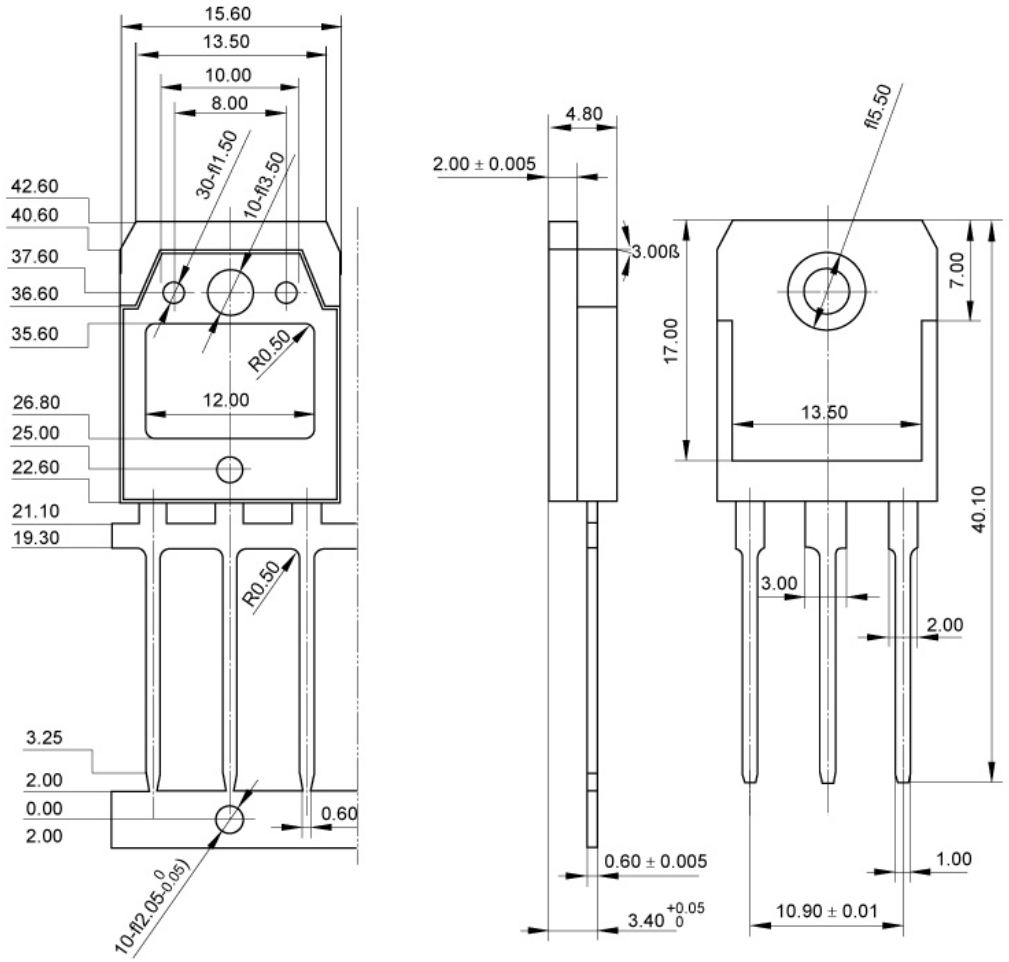



**Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)**