

Silicon NPN Power Transistors

BU208A

DESCRIPTION

- With TO-3 package
- High voltage ,high speed

APPLICATIONS

- For use in horizontal deflection output stages for color TV receives.

PINNING(see fig.2)

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

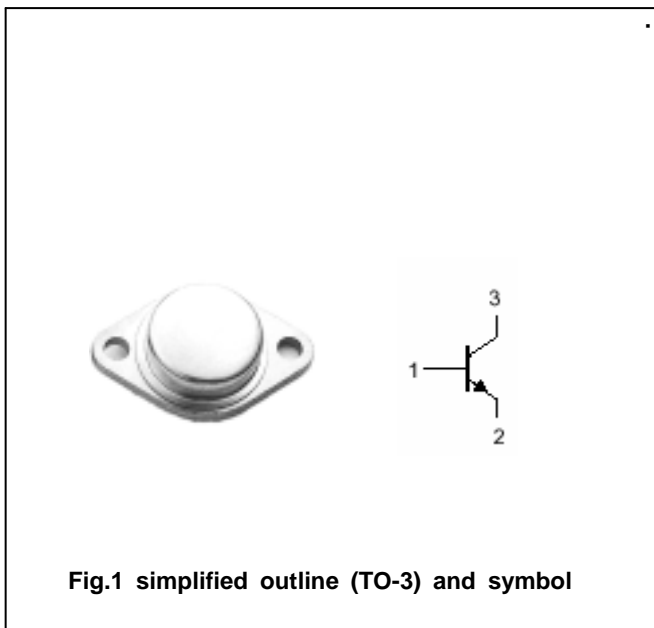


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=)

| 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 | 5 | V |
| I_C | Collector current | | 5 | A |
| I_{CM} | Collector current-peak | | 7.5 | A |
| I_B | Base current | | 0.1 | A |
| I_{BM} | Base current-peak | | 2.5 | A |
| P_T | Total power dissipation | $T_C=25$ | 150 | W |
| T_j | Junction temperature | | 115 | |
| T_{stg} | Storage temperature | | -65~150 | |

THERMAL CHARACTERISTICS

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

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CHARACTERISTICS

T_j=25 unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|---|------|------|-----|------|
| V _{CE0(SUS)} | Collector-emitter sustaining voltage | I _C =0.1A; I _B =0; L=25mH | 700 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =10mA; I _C =0 | 5 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =4.5 A; I _B =2 A | | | 1.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =4.5 A; I _B =2 A | | | 1.5 | V |
| I _{CES} | Collector cut-off current | V _{CE} =1500V; V _{BE} =0 | | | 1.0 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | | | 0.1 | mA |
| h _{FE-1} | DC current gain | I _C =1A ; V _{CE} =5V | 8 | | | |
| h _{FE-2} | DC current gain | I _C =4.5A ; V _{CE} =5V | 2.25 | | | |
| C _{OB} | Output capacitance | I _E =0; V _{CB} =10V; f=1MHz | | 125 | | pF |
| f _T | Transition frequency | I _C =0.1A ; V _{CE} =15V | | 7 | | MHz |
| t _s | Storage time | I _C =4.5A ; I _B =1.8A L _B =10 μ H | | | 10 | μ s |
| t _f | Fall time | | | | 0.7 | μ s |

PACKAGE OUTLINE

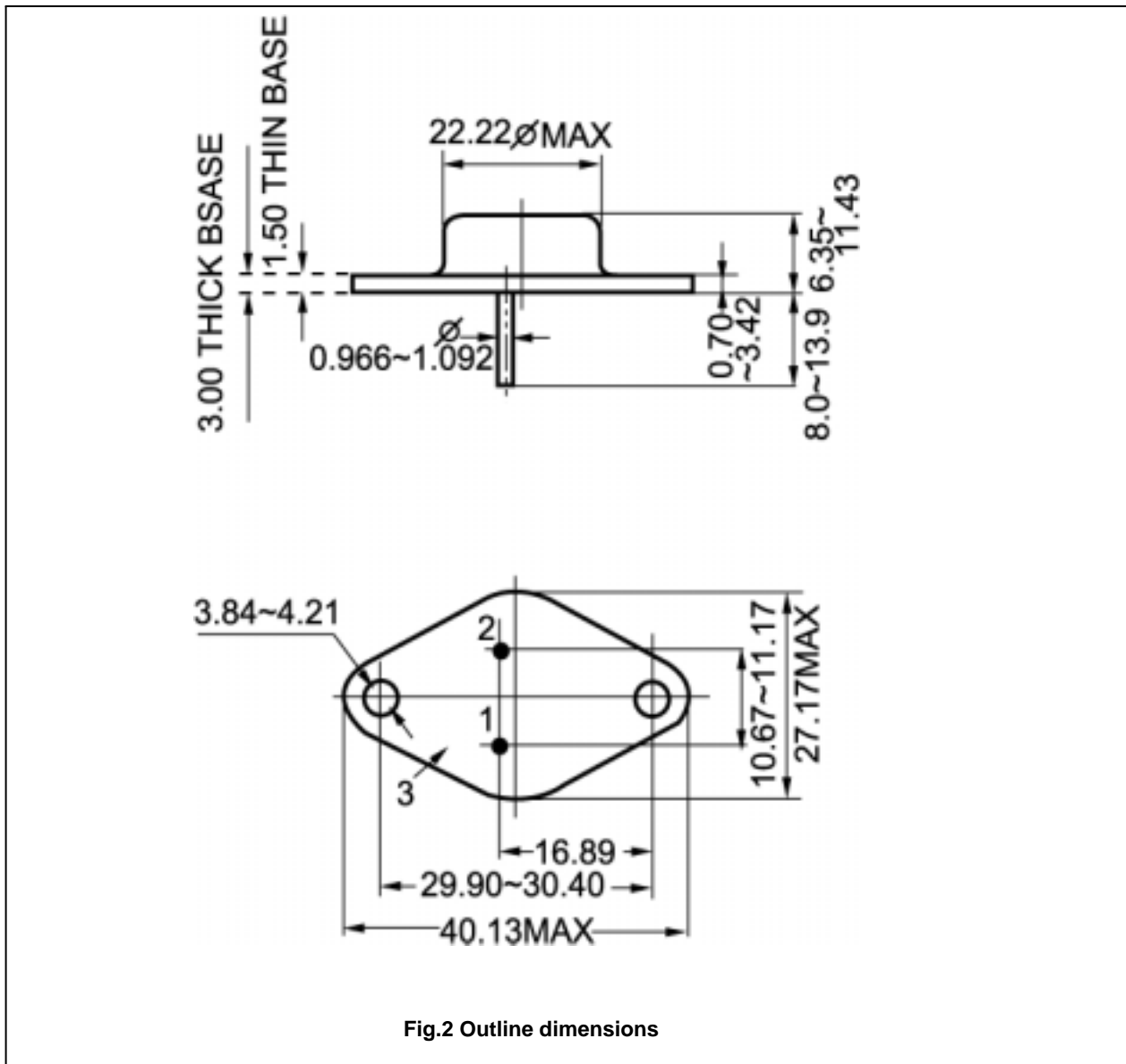


Fig.2 Outline dimensions