

Silicon NPN Power Transistors

BUH715AF

DESCRIPTION

www.dataSheet4U.com

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

APPLICATIONS

- Horizontal deflection for monitors.
- Switching mode power supplies

PINNING

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

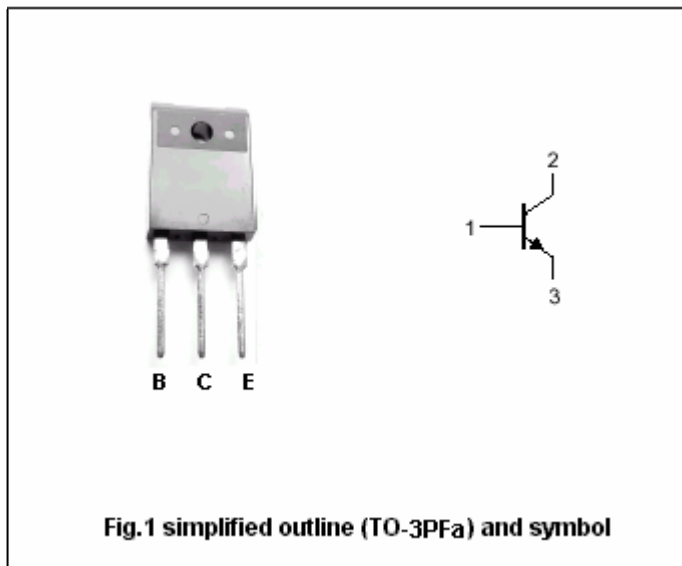


Fig.1 simplified outline (TO-3PFa) and symbol

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 | 10 | V |
| I _C | Collector current (DC) | | 10 | A |
| I _{CM} | Collector current (Pulse) | | 20 | A |
| I _B | Base current (DC) | | 5 | A |
| I _{BM} | Base current (Pulse) | | 10 | A |
| P _{tot} | Total power dissipation | T _C =25°C | 57 | W |
| T _j | Operating junction temperature | | 150 | °C |
| T _{stg} | Storage temperature | | -65~150 | °C |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------------|--|-----|------|
| R _{th j-c} | Thermal resistance from junction to case | 2.2 | °C/W |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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| 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 | 10 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =7A ; I _B =1.5A | | | 1.5 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =7A ; I _B =1.5A | | | 1.3 | V |
| I _{CES} | Collector cut-off current | V _{CE} =1500V ; V _{BE} =0 T _j =125°C | | | 1 2 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V ; I _C =0 | | | 100 | μA |
| h _{FE-1} | DC current gain | I _C =1A ; V _{CE} =5V | 10 | | | |
| h _{FE-2} | DC current gain | I _C =7A ; V _{CE} =5V | 8 | | 16 | |

Switching times

| | | | | | | |
|----------------|--------------|---|--|-----|-----|----|
| t _s | Storage time | I _C =7A ; I _{B1} =1.5A ; I _{B2} =3.5A ; V _{CC} =400V | | 2.1 | 3.1 | μs |
| t _f | Fall time | | | 140 | 210 | ns |

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PACKAGE OUTLINE

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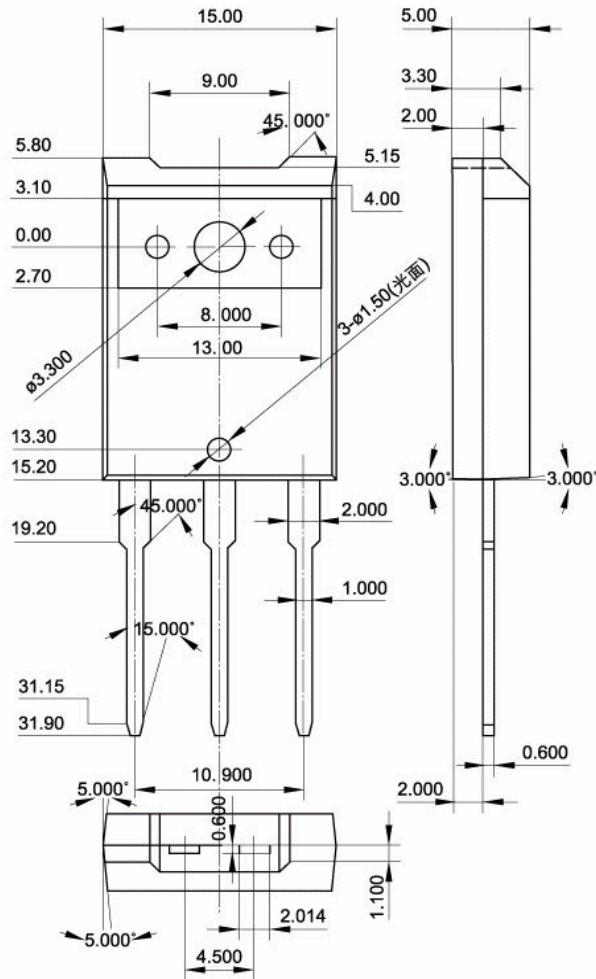


Fig.2 Outline dimensions(unindicated tolerance:±0.30mm)