

Silicon PNP Power Transistors

BDX88C

DESCRIPTION

- With TO-3 package
- Complement to type BDX87C
- DARLINGTON

APPLICATIONS

- Designed for use in power linear and switching application.

PINNING (See Fig.2)

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

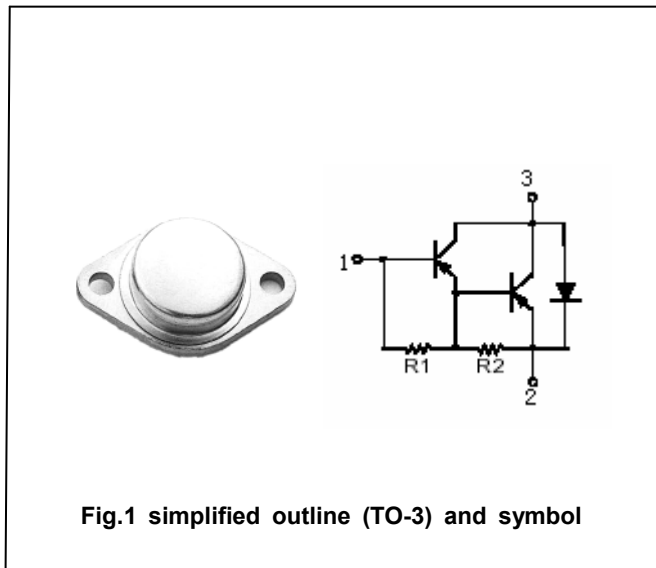


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-------------------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | -100 | V |
| V _{CEO} | Collector-emitter voltage | Open base | -100 | V |
| V _{EBO} | Emitter-base voltage | Open collector | -5 | V |
| I _C | Collector current | | -12 | A |
| I _{CM} | Collector current(peak) | | -18 | A |
| I _B | Base current | | -0.2 | A |
| P _T | Total power dissipation | T _C =25°C | 120 | W |
| T _j | Max. operating Junction temperature | | 200 | °C |
| T _{stg} | Storage temperature | | -65~200 | °C |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------------|--|------|------|
| R _{th j-c} | Thermal resistance from junction to case | 1.45 | °C/W |

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|--|------|------|--------------|------|
| V _{CE0(SUS)} | Collector-emitter sustaining voltage | I _C =-0.1A ; I _B =0 | -100 | | | V |
| V _{CEsat-1} | Collector-emitter saturation voltage | I _C =-6A ; I _B =-24mA | | | -2.0 | V |
| V _{CEsat-2} | Collector-emitter saturation voltage | I _C =-12A ; I _B =-120mA | | | -3.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =-12A ; I _B =-120mA | | | -4.0 | V |
| V _{BE} | Base-emitter on voltage | I _C =-6A ; V _{CE} =-3V | | | -2.8 | V |
| h _{FE-1} | DC current gain | I _C =-5A ; V _{CE} =-3V | 1000 | | | |
| h _{FE-2} | DC current gain | I _C =-6A ; V _{CE} =-3V | 750 | | 18000 | |
| h _{FE-3} | DC current gain | I _C =-12A ; V _{CE} =-3V | 100 | | | |
| I _{CBO} | Collector cut-off current | V _{CB} =-100V ; I _E =0 T _C =150 °C | | | -0.5 -5.0 | mA |
| I _{CEO} | Collector cut-off current | V _{CE} =-50V ; I _B =0 | | | -1.0 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-5V ; I _C =0 | | | -1.0 | mA |
| V _{F-1} | Diode forward voltage | I _F =-3A | | | -1.8 | V |
| V _{F-2} | Diode forward voltage | I _F =-8A | | -2.5 | | V |

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PACKAGE OUTLINE

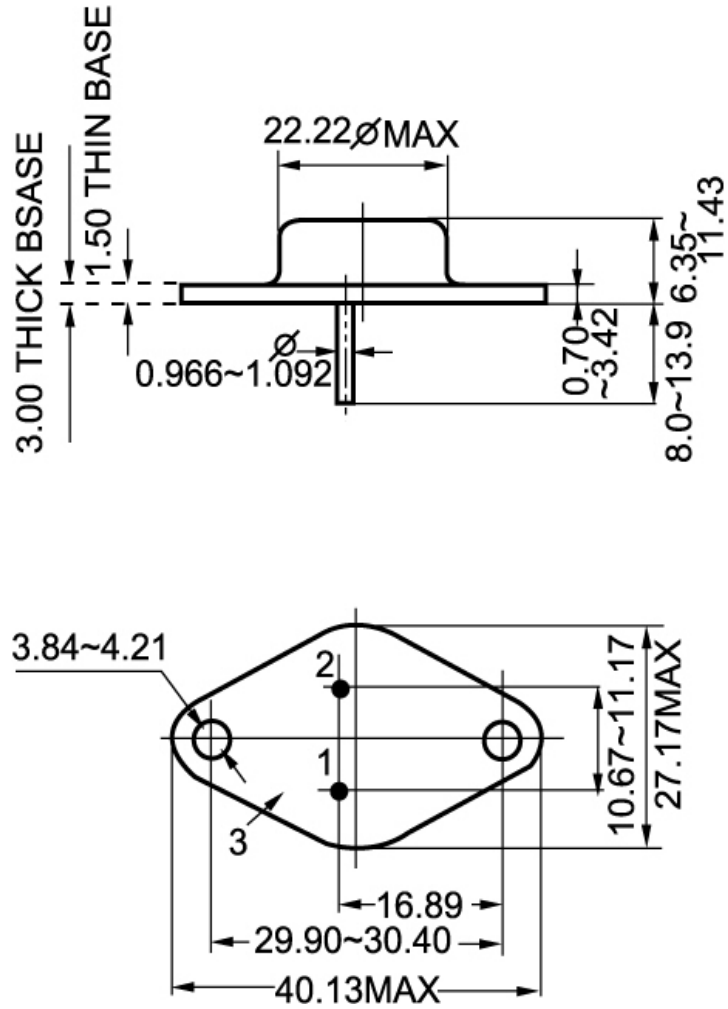


Fig.2 Outline dimensions