

Silicon NPN Power Transistors

2SD1110

DESCRIPTION

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- With TO-3PFa package
- Complement to type 2SB849
- Wide area of safe operation

APPLICATIONS

- For use in low frequency power amplifier applications

PINNING

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

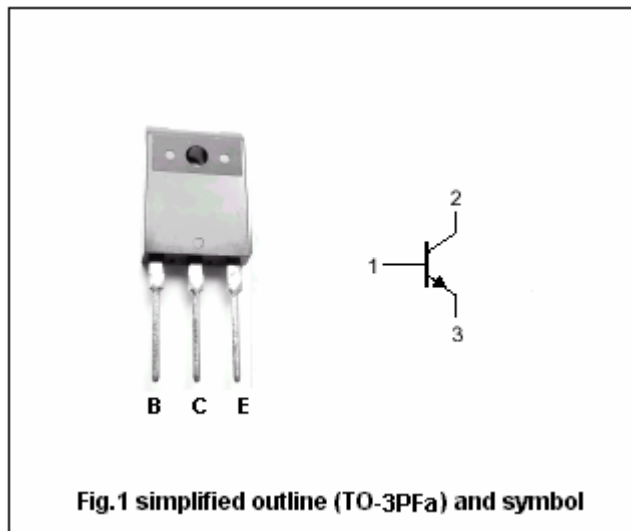


Fig.1 simplified outline (TO-3PFa) and symbol

ABSOLUTE MAXIMUM RATINGS (T_C=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-----------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | 120 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 120 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 7 | V |
| I _C | Collector current | | 7 | A |
| P _C | Collector power dissipation | T _C =25°C | 80 | W |
| T _j | Junction temperature | | 150 | °C |
| T _{stg} | Storage temperature | | -55~150 | °C |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|--|-----|------|-----|------|
| V _{(BR)CEO} | Collector-emitter breakdown voltage | I _C =10mA ; I _B =0 | 120 | | | V |
| V _{CE(sat)} | Collector-emitter saturation voltage | I _C =5A ; I _B =0.5A | | | 2.0 | V |
| V _{BE(sat)} | Base-emitter saturation voltage | I _C =5A ; I _B =0.5A | | | 2.0 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =120V; I _E =0 | | | 50 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =6V; I _C =0 | | | 50 | μA |
| h _{FE-1} | DC current gain | I _C =20mA ; V _{CE} =5V | 20 | | | |
| h _{FE-2} | DC current gain | I _C =1A ; V _{CE} =5V | 40 | | 200 | |
| C _{OB} | Output capacitance | I _E =0 ; V _{CB} =10V; f=1MHz | | 190 | | pF |
| f _T | Transition frequency | I _C =0.2A ; V _{CE} =5V | | 15 | | MHz |

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PACKAGE OUTLINE

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