

Silicon PNP Power Transistors

2SB1159

DESCRIPTION

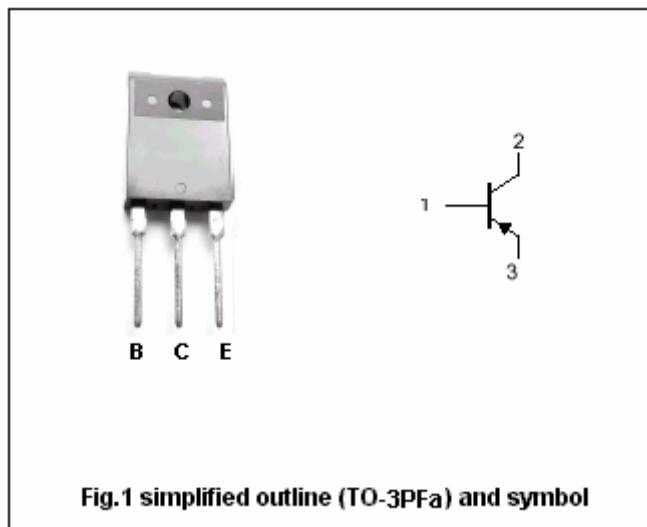
- With TO-3PFa package
- Complement to type 2SD1714
- High f_T
- Wide area of safe operation

APPLICATIONS

- For high power amplifier applications

PINNING

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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|------------------------|---------|------------------|
| V_{CBO} | Collector-base voltage | Open emitter | -140 | V |
| V_{CEO} | Collector-emitter voltage | Open base | -140 | V |
| V_{EBO} | Emitter-base voltage | Open collector | -5 | V |
| I_C | Collector current | | -7 | A |
| I_{CP} | Collector current-peak | | -12 | A |
| P_C | Collector power dissipation | $T_C=25^\circ\text{C}$ | 80 | W |
| | | $T_a=25^\circ\text{C}$ | 3 | |
| T_j | Junction temperature | | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage temperature | | -55~150 | $^\circ\text{C}$ |

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|--------------------|--------------------------------------|---|-----|------|------|------|
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-5A ; I _B =-0.5A | | | -2.0 | V |
| V _{BE} | Base-emitter on voltage | I _C =-5A ; V _{CE} =-5V | | | -1.8 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-140V; I _E =0 | | | -50 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-3V; 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 | 60 | | 200 | |
| h _{FE-3} | DC current gain | I _C =-5A ; V _{CE} =-5V | 20 | | | |
| C _{OB} | Output capacitance | I _E =0 ; V _{CB} =-10V; f=1MHz | | 220 | | pF |
| f _T | Transition frequency | I _C =-0.5A ; V _{CE} =-5V | | 20 | | MHz |

◆ h_{FE-2} classifications

| Q | S | P |
|--------|--------|---------|
| 60-120 | 80-160 | 100-200 |

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PACKAGE OUTLINE



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