

## PNP HDTV video transistor

T-33-17

BFQ295

PHILIPS INTERNATIONAL

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## FEATURES

- High breakdown voltages
- Low output capacitance
- High gain bandwidth product
- Good thermal stability
- Gold metallization ensures excellent reliability
- Complementary NPN type BFQ296.

## PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | emitter     |
| 2   | collector   |
| 3   | base        |

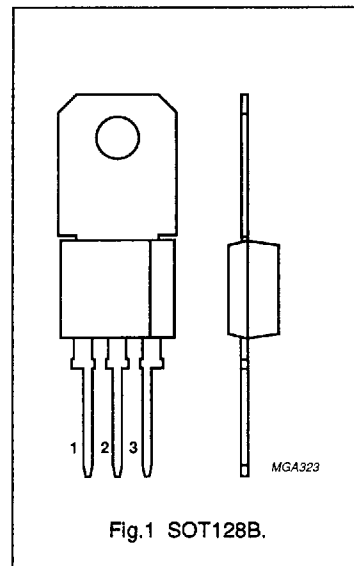


Fig.1 SOT128B.

## DESCRIPTION

The BFQ295 is mounted in a SOT128B plastic envelope, with the collector connected to the mounting base.

## LIMITING VALUES

In accordance with the Absolute Maximum System (IEC 134).

| SYMBOL     | PARAMETER                        | MAX. | UNIT |
|------------|----------------------------------|------|------|
| $-V_{CBO}$ | collector-base voltage           | 230  | V    |
| $-V_{CER}$ | collector-emitter voltage        | 225  | V    |
| $-I_C$     | collector current                | 250  | mA   |
| $P_{tot}$  | total power dissipation (note 1) | 4    | W    |
| $T_j$      | junction temperature             | 175  | °C   |

## Note

1.  $T_{mb} = 67^\circ\text{C}$ .

## CHARACTERISTICS

$T_j = 25^\circ\text{C}$  unless otherwise specified.

| SYMBOL         | PARAMETER                           | CONDITIONS                                                                | MIN. | TYP. | UNIT |
|----------------|-------------------------------------|---------------------------------------------------------------------------|------|------|------|
| $-V_{(BR)CBO}$ | collector-base breakdown voltage    | open emitter; $-I_C = 100\ \mu\text{A}$                                   | 195  | —    | V    |
| $-V_{(BR)CER}$ | collector-emitter breakdown voltage | $-I_C = 1\ \text{mA}$ ; $R_{BE} = 100\ \Omega$                            | 190  | —    | V    |
| $h_{FE}$       | DC current gain                     | $-I_C = 25\ \text{mA}$ ; $-V_{CE} = 10\ \text{V}$                         | 15   | —    |      |
| $f_T$          | transition frequency                | $-I_C = 25\ \text{mA}$ ; $-V_{CE} = 10\ \text{V}$ ; $f = 100\ \text{MHz}$ | 400  | —    | MHz  |
| $C_{cb}$       | collector-base capacitance          | $I_C = I_e = 0$ ; $-V_{CB} = 10\ \text{V}$ ; $f = 1\ \text{MHz}$          | —    | 1.8  | pF   |