

NPN HDTV video transistor

T-33-05

BFQ296

PHILIPS INTERNATIONAL

56E D

7110826 0045678 079 PHIN

FEATURES

- High breakdown voltages
- Low output capacitance
- High gain bandwidth product
- Good thermal stability
- Gold metallization ensures excellent reliability
- Complementary PNP type BFQ295.

PINNING

PIN	DESCRIPTION
1	emitter
2	collector
3	base

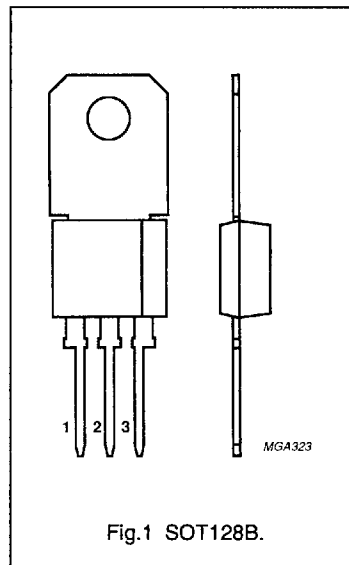


Fig.1 SOT128B.

DESCRIPTION

The BFQ296 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. $T_{mb} = 67\text{ °C}$.

CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	UNIT
$V_{(BR)CBO}$	collector-base breakdown voltage	open emitter; $I_C = 100\text{ }\mu\text{A}$	195	—	V
$V_{(BR)CER}$	collector-emitter breakdown voltage	$I_C = 1\text{ mA}$; $R_{BE} = 100\text{ }\Omega$	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	$I_C = I_C = 0$; $V_{CB} = 10\text{ V}$; $f = 1\text{ MHz}$	—	1.8	pF