

NPN HDTV video transistor

T-33-05

BFQ291

PHILIPS INTERNATIONAL

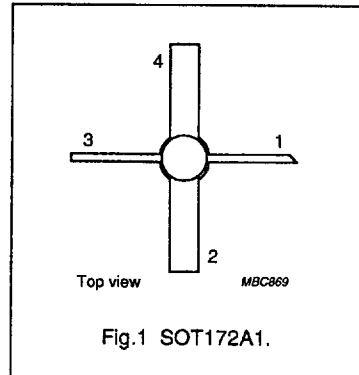
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FEATURES

- High breakdown voltages
- Low output capacitance
- High gain bandwidth product
- Good thermal stability
- Gold metallization ensures excellent reliability
- Complementary PNP type BFQ290.

PINNING

PIN	DESCRIPTION
1	collector
2	base
3	emitter
4	base



DESCRIPTION

The BFQ291 has a 4-lead SOT172A1 stud envelope with a ceramic cap. All leads are isolated from the stud.

LIMITING VALUES

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

SYMBOL	PARAMETER	MIN.	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	—	200	°C

Note

1. $T_{mb} = 100\text{ °C}$.

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	$I_C = I_E = 0$; $V_{CB} = 10\text{ V}$; $f = 1\text{ MHz}$	—	1.8	pF