NPN HDTV video transistor

T-33-05

BFQ293

FEATURES

- High breakdown voltages
- Low output capacitance
- High gain bandwidth product
- Good thermal stability
- Gold metallization ensures excellent reliability
- Complementary PNP type BFQ292.

PINNING

PIN	DESCRIPTION
1	emitter
2	collector
3	base

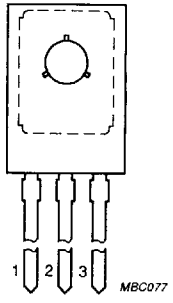

Fig.1 SOT32.

DESCRIPTION

The BFQ293 is mounted in a SOT32 plastic envelope, with the collector connected to the mounting base.

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
f_T	transition frequency	400	–	MHz
T_j	junction temperature	–	175	°C

Note

1. T_{mb} = 85 °C.

CHARACTERISTICS

T_j = 25 °C unless otherwise specified.

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