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TR BF470;CS;TO126;tranzystor; PNP;100mA;50V;1.8W;60MHz



Dane techniczne:

Nazwa: BF470

Typ tranzystora: bipolarny

Kierunek przewodnictwa: PNP

Prąd kolektora: 100mA

Napięcie kolektor-emiter: 50V

Moc: 1.8W

Częstotliwość: 60MHz

Montaż: przewlekany(THT)

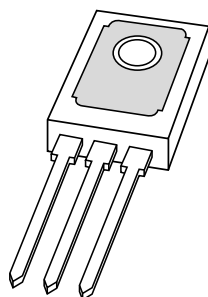
Obudowa: TO126

Producent: CS

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DATA SHEET



BF470; BF472 PNP high-voltage transistors

Product specification
Supersedes data of September 1994
File under Discrete Semiconductors, SC04

1996 Dec 09

PNP high-voltage transistors

BF470; BF472

FEATURES

- Low feedback capacitance.

APPLICATIONS

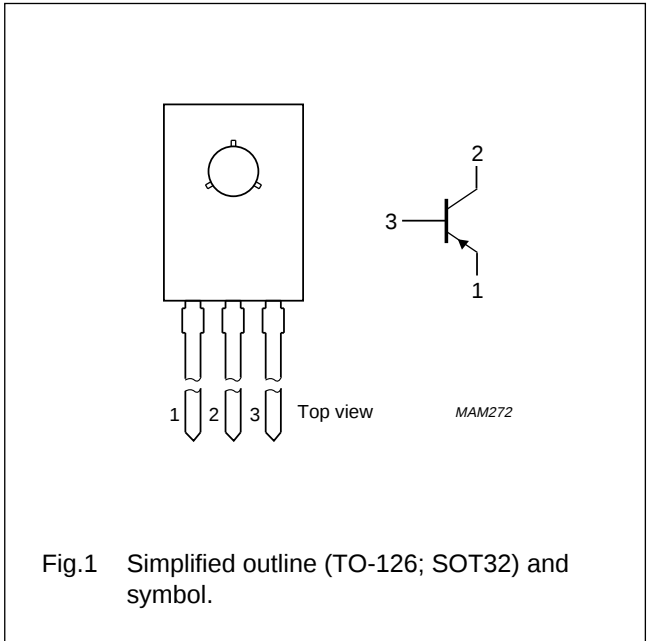
- Class-B video output stages in television receivers and for high-voltage IF output stages.

DESCRIPTION

PNP transistors in a TO-126; SOT32 plastic package.
NPN complements: BF469 and BF471.

PINNING

PIN	DESCRIPTION
1	emitter
2	collector, connected to mounting base
3	base



QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V _{CBO}	collector-base voltage	open emitter	—	—	—
	BF470		—	–250	V
	BF472		—	–300	V
V _{CEO}	collector-emitter voltage	open base	—	—	—
	BF470		—	–250	V
	BF472		—	–300	V
I _{CM}	peak collector current		—	–100	mA
P _{tot}	total power dissipation	T _{mb} ≤ 114 °C	—	1.8	W
h _{FE}	DC current gain	I _C = –25 mA; V _{CE} = –20 V	50	—	—
C _{re}	feedback capacitance	I _C = i _c = 0; V _{CE} = –30 V; f = 1 MHz	—	1.8	pF
f _T	transition frequency	I _C = –10 mA; V _{CE} = –10 V; f = 100 MHz	60	—	MHz

PNP high-voltage transistors

BF470; BF472

LIMITING VALUES

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_{CBO}	collector-base voltage	open emitter	–	–250	V
	BF470 BF472		–	–300	V
V_{CEO}	collector-emitter voltage	open base	–	–250	V
	BF470 BF472		–	–300	V
V_{EBO}	emitter-base voltage	open collector	–	–5	V
I_C	collector current (DC)		–	–50	mA
I_{CM}	peak collector current		–	–100	mA
I_{BM}	peak base current		–	–50	mA
P_{tot}	total power dissipation	$T_{mb} \leq 114\text{ °C}$	–	1.8	W
T_{stg}	storage temperature		–65	+150	°C
T_j	junction temperature		–	150	°C
T_{amb}	operating ambient temperature		–65	+150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	in free air; note 1	100	K/W
$R_{th\ j-mb}$	thermal resistance from junction to mounting base		20	K/W

Note

1. Transistor mounted on a printed-circuit board, maximum lead length 4 mm; mounting pad for collector lead minimum 10×10 mm.

CHARACTERISTICS

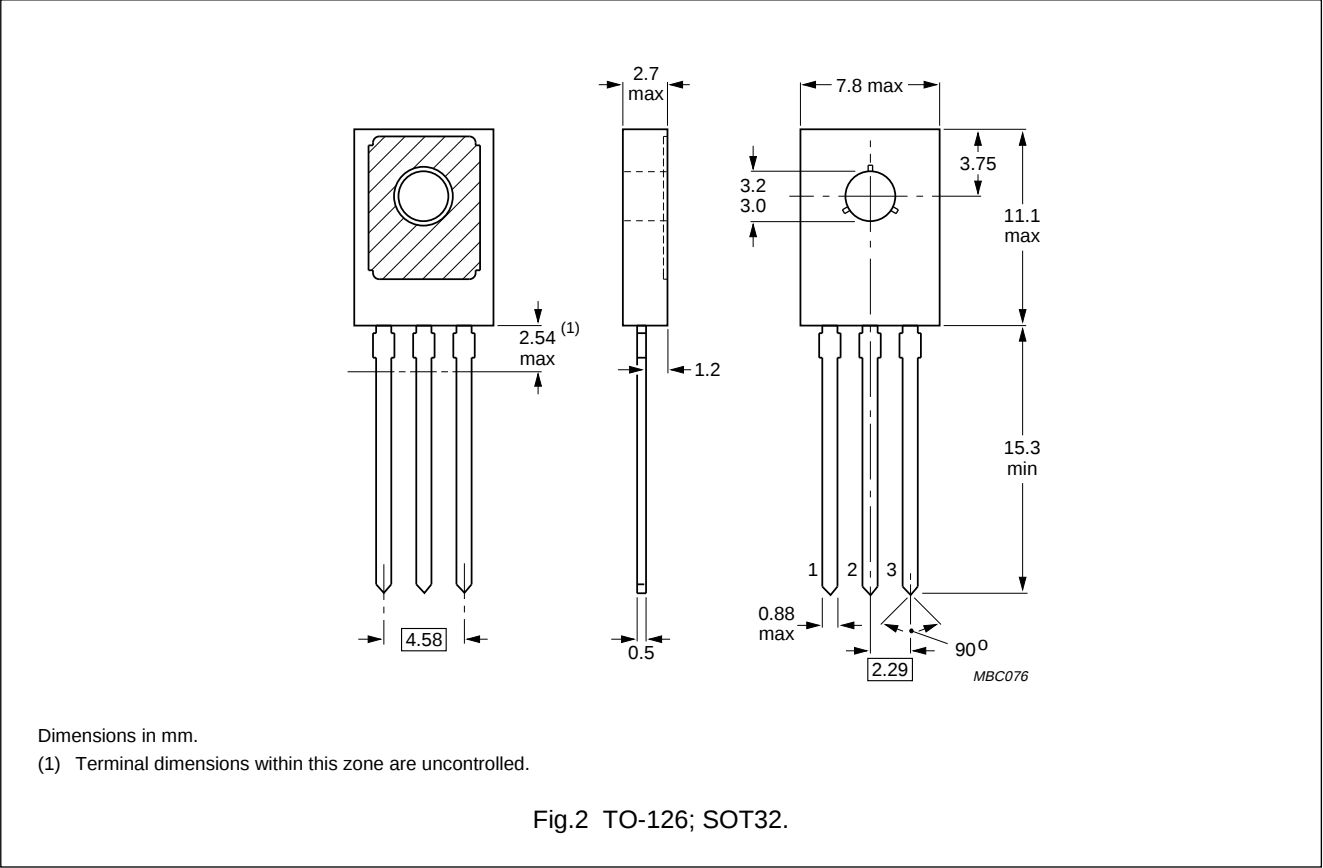
$T_j = 25\text{ °C}$ unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
I_{CBO}	collector cut-off current	$I_E = 0; V_{CB} = -200\text{ V}$	–	–10	nA
		$I_E = 0; V_{CB} = -200\text{ V}; T_j = 150\text{ °C}$	–	–10	μA
I_{EBO}	emitter cut-off current	$I_C = 0; V_{EB} = -5\text{ V}$	–	–50	nA
h_{FE}	DC current gain	$I_C = -25\text{ mA}; V_{CE} = -20\text{ V}$	50	–	
V_{CEsat}	collector-emitter saturation voltage	$I_C = -30\text{ mA}; I_B = -5\text{ mA}$	–	–600	mV
C_{re}	feedback capacitance	$I_C = i_c = 0; V_{CE} = -30\text{ V}; f = 1\text{ MHz}$	–	1.8	pF
f_T	transition frequency	$I_C = -10\text{ mA}; V_{CE} = -10\text{ V}; f = 100\text{ MHz}$	60	–	MHz

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PACKAGE OUTLINE



DEFINITIONS

Data sheet status	
Objective specification	This data sheet contains target or goal specifications for product development.
Preliminary specification	This data sheet contains preliminary data; supplementary data may be published later.
Product specification	This data sheet contains final product specifications.
Limiting values	
Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 134). Stress above one or more of the limiting values may cause permanent damage to the device. These are stress ratings only and operation of the device at these or at any other conditions above those given in the Characteristics sections of the specification is not implied. Exposure to limiting values for extended periods may affect device reliability.	
Application information	
Where application information is given, it is advisory and does not form part of the specification.	

LIFE SUPPORT APPLICATIONS

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NOTES

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Printed in The Netherlands

117041/00/02/pp8

Date of release: 1996 Dec 09

Document order number: 9397 750 01567

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