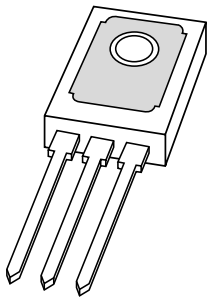


DATA SHEET



BFV469 NPN high-voltage transistor

Product specification
File under Discrete Semiconductors, SC04

1997 Jun 20

NPN high-voltage transistor

BFV469

FEATURES

- High transition frequency
- Low feedback capacitance.

APPLICATIONS

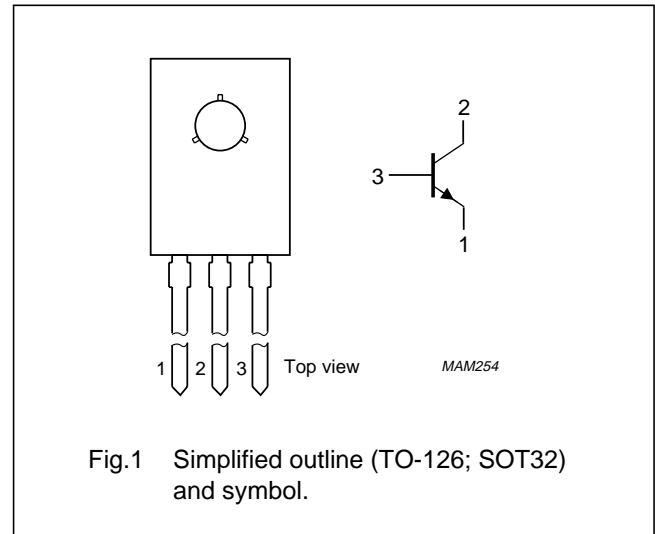
- Buffer transistor in monitors.

DESCRIPTION

NPN high-voltage transistor in a TO-126; SOT32 plastic package.

PINNING

PIN	DESCRIPTION
1	emitter
2	collector
3	base



QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_{CBO}	collector-base voltage	open emitter	–	140	V
V_{CEO}	collector-emitter voltage	open base	–	100	V
I_{CM}	peak collector current		–	100	mA
P_{tot}	total power dissipation	$T_{amb} \leq 25\text{ °C}$	–	2	W
h_{FE}	DC current gain	$I_C = 10\text{ mA}; V_{CE} = 10\text{ V}$	150	–	
C_{re}	feedback capacitance	$I_C = i_c = 0; V_{CB} = 25\text{ V}; f = 1\text{ MHz}$	–	1.5	pF
f_T	transition frequency	$I_C = 20\text{ mA}; V_{CE} = 20\text{ V}; f = 100\text{ MHz}$	150	–	MHz

NPN high-voltage transistor

BFV469

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	–	140	V
V _{CEO}	collector-emitter voltage	open base	–	100	V
V _{EBO}	emitter-base voltage	open collector	–	5	V
I _C	collector current (DC)		–	100	mA
I _{CM}	peak collector current		–	100	mA
I _{BM}	peak base current		–	100	mA
P _{tot}	total power dissipation	T _{amb} ≤ 25 °C; note 1	–	2	W
T _{stg}	storage temperature		–65	+150	°C
T _j	junction temperature		–	150	°C
T _{amb}	operating ambient temperature		–65	+150	°C

Note

1. Transistor mounted on an FR4 printed-circuit board.

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
R _{th j-a}	thermal resistance from junction to ambient	note 1	100	K/W
R _{th j-mb}	thermal resistance from junction to mounting base		10	K/W

Note

1. Transistor mounted on an FR4 printed-circuit board.

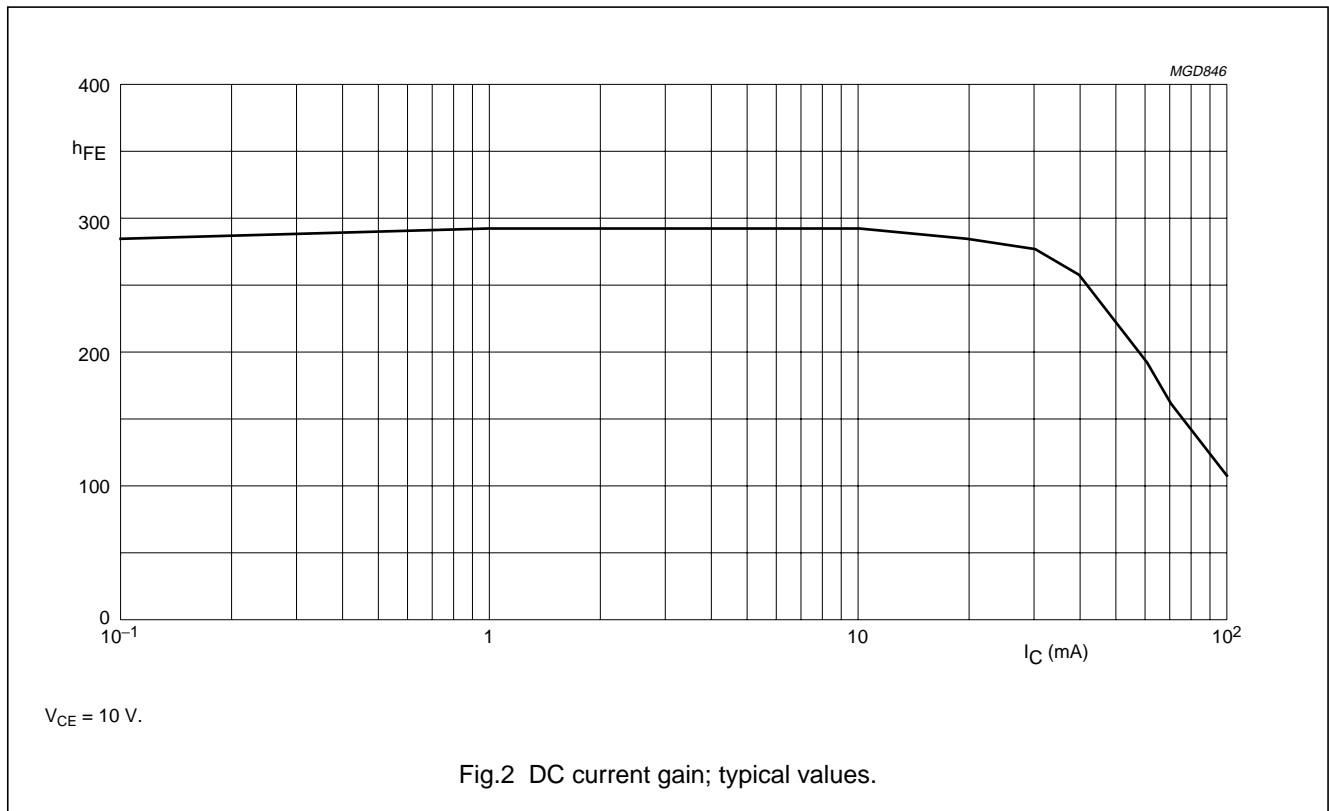
NPN high-voltage transistor

BFV469

CHARACTERISTICS

T_{amb} = 25 °C unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
I _{CBO}	collector cut-off current	I _E = 0; V _{CB} = 100 V	–	100	nA
I _{EBO}	emitter cut-off current	I _C = 0; V _{EB} = 4 V	–	100	nA
h _{FE}	DC current gain	V _{CE} = 10 V; see Fig.2 I _C = 10 mA I _C = 50 mA	150 20	– –	
V _{CEsat}	collector-emitter saturation voltage	I _C = 30 mA; I _B = 5 mA	–	200	mV
C _{re}	feedback capacitance	I _C = i _c = 0; V _{CB} = 25 V; f = 1 MHz	–	1.5	pF
f _T	transition frequency	I _C = 20 mA; V _{CE} = 20 V; f = 100 MHz	150	–	MHz



NPN high-voltage transistor

BFV469

PACKAGE OUTLINE

Plastic single-ended leaded (through hole) package; mountable to heatsink, 1 mounting hole; 3 leads SOT32



DIMENSIONS (mm are the original dimensions)

UNIT	A	b_p	c	D	E	e	e_1	L	$L_1^{(1)}$ max	Q	P	P_1	w
mm	2.7 2.3	0.88 0.65	0.60 0.45	11.1 10.5	7.8 7.2	4.58	2.29	16.5 15.3	2.54	1.5 0.9	3.2 3.0	3.9 3.6	0.254

Note

1. Terminal dimensions within this zone are uncontrolled to allow for flow of plastic and terminal irregularities.

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	EIAJ			
SOT32		TO-126				97-03-04

NPN high-voltage transistor

BFV469

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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