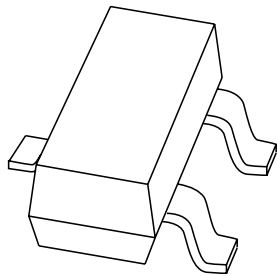


DATA SHEET



Datasheet.Live

BCV26; BCV46 PNP Darlington transistors

Product specification
Supersedes data of 1999 Apr 08

2004 Jan 13

PNP Darlington transistors

BCV26; BCV46

FEATURES

- High current (max. 500 mA)
- Low voltage (max. 60 V)
- Very high DC current gain (min. 10000).

APPLICATIONS

- Where very high amplification is required.

DESCRIPTION

PNP Darlington transistor in a SOT23 plastic package.
NPN complements: BCV27 and BCV47.

MARKING

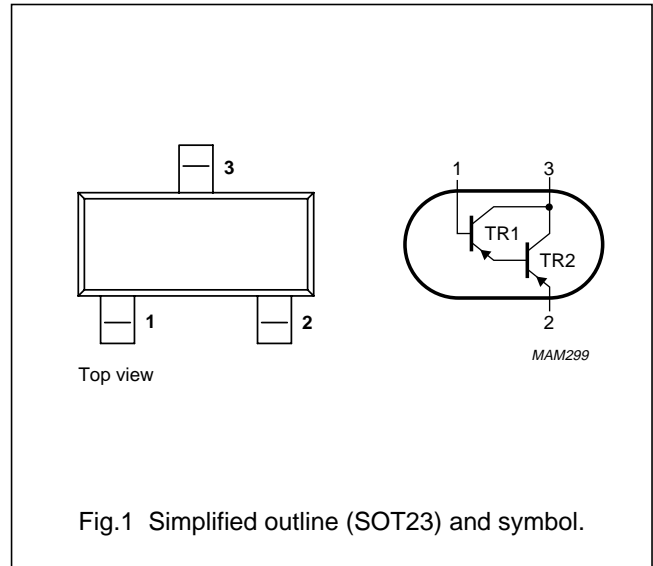
TYPE NUMBER	MARKING CODE ⁽¹⁾
BCV26	FD*
BCV46	FE*

Note

- * = p : Made in Hong Kong.
* = t : Made in Malaysia.
* = W : Made in China.

PINNING

PIN	DESCRIPTION
1	base
2	emitter
3	collector



ORDERING INFORMATION

TYPE NUMBER	PACKAGE		
	NAME	DESCRIPTION	VERSION
BCV26	–	plastic surface mounted package; 3 leads	SOT23
BCV46			

PNP Darlington transistors

BCV26; BCV46

LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V _{CBO}	collector-base voltage	open emitter			
	BCV26		–	–40	V
	BCV46		–	–80	V
V _{CES}	collector-emitter voltage	V _{BE} = 0			
	BCV26		–	–30	V
	BCV46		–	–60	V
V _{EBO}	emitter-base voltage	open collector	–	–10	V
I _C	collector current (DC)		–	–500	mA
I _{CM}	peak collector current		–	–800	mA
I _B	base current (DC)		–	–100	mA
P _{tot}	total power dissipation	T _{amb} ≤ 25 °C; note 1	–	250	mW
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	500	K/W

Note

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

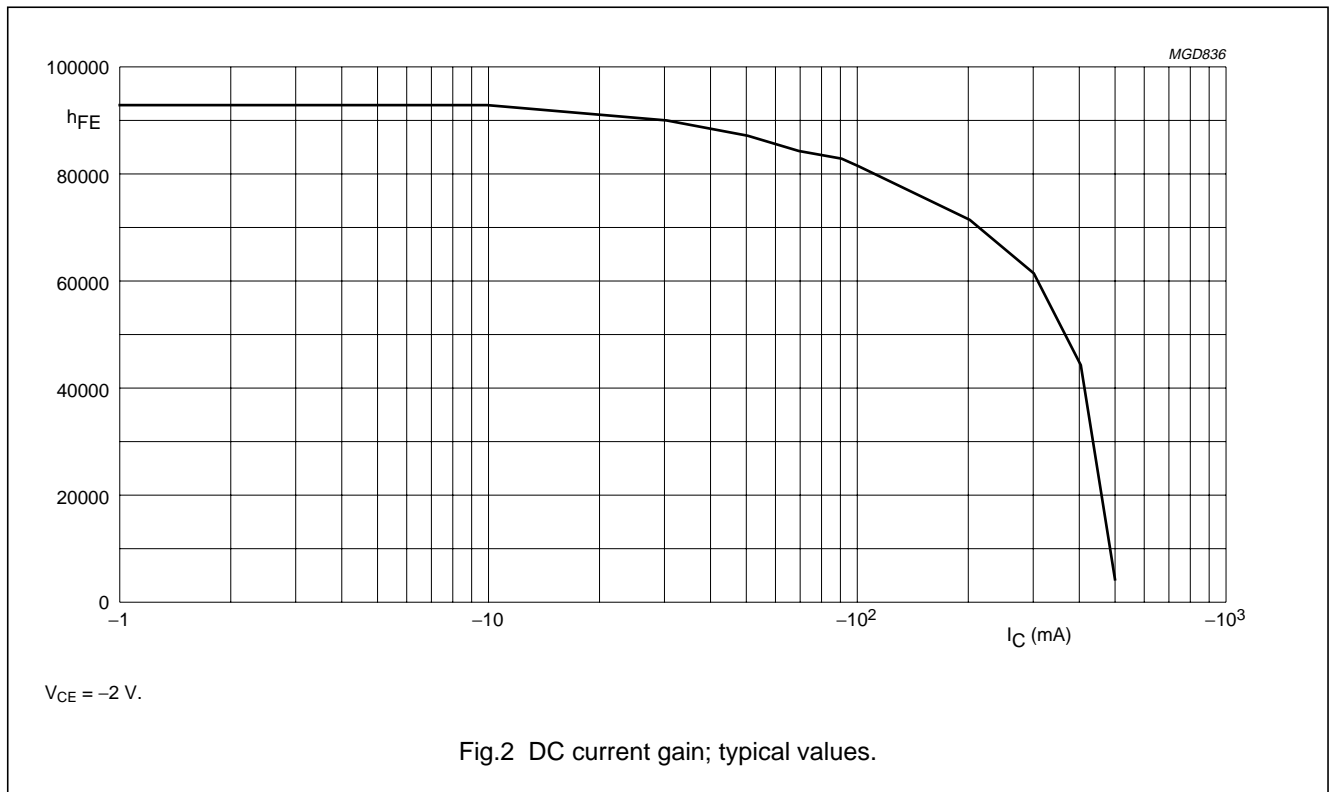
PNP Darlington transistors

BCV26; BCV46

CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
I _{CBO}	collector cut-off current					
	BCV26	I _E = 0; V _{CB} = -30 V	-	-	-100	nA
	BCV46	I _E = 0; V _{CB} = -60 V	-	-	-100	nA
I _{EBO}	emitter cut-off current	I _C = 0; V _{EB} = -10 V	-	-	-100	nA
h _{FE}	DC current gain	I _C = -1 mA; V _{CE} = -5 V; (see Fig.2)				
	BCV26		4000	-	-	
	BCV46		2000	-	-	
	DC current gain	I _C = -10 mA; V _{CE} = -5 V; (see Fig.2)				
	BCV26		10000	-	-	
	BCV46		4000	-	-	
V _{CEsat}	collector-emitter saturation voltage	I _C = -100 mA; I _B = -0.1 mA	-	-	-1	V
	V _{BEsat}	base-emitter saturation voltage	I _C = -100 mA; I _B = -0.1 mA	-	-	-1.5
V _{BEon}	base-emitter on-state voltage	I _C = -10 mA; V _{CE} = -5 V	-	-	-1.4	V
f _T	transition frequency	I _C = -30 mA; V _{CE} = -5 V; f = 100 MHz	-	220	-	MHz



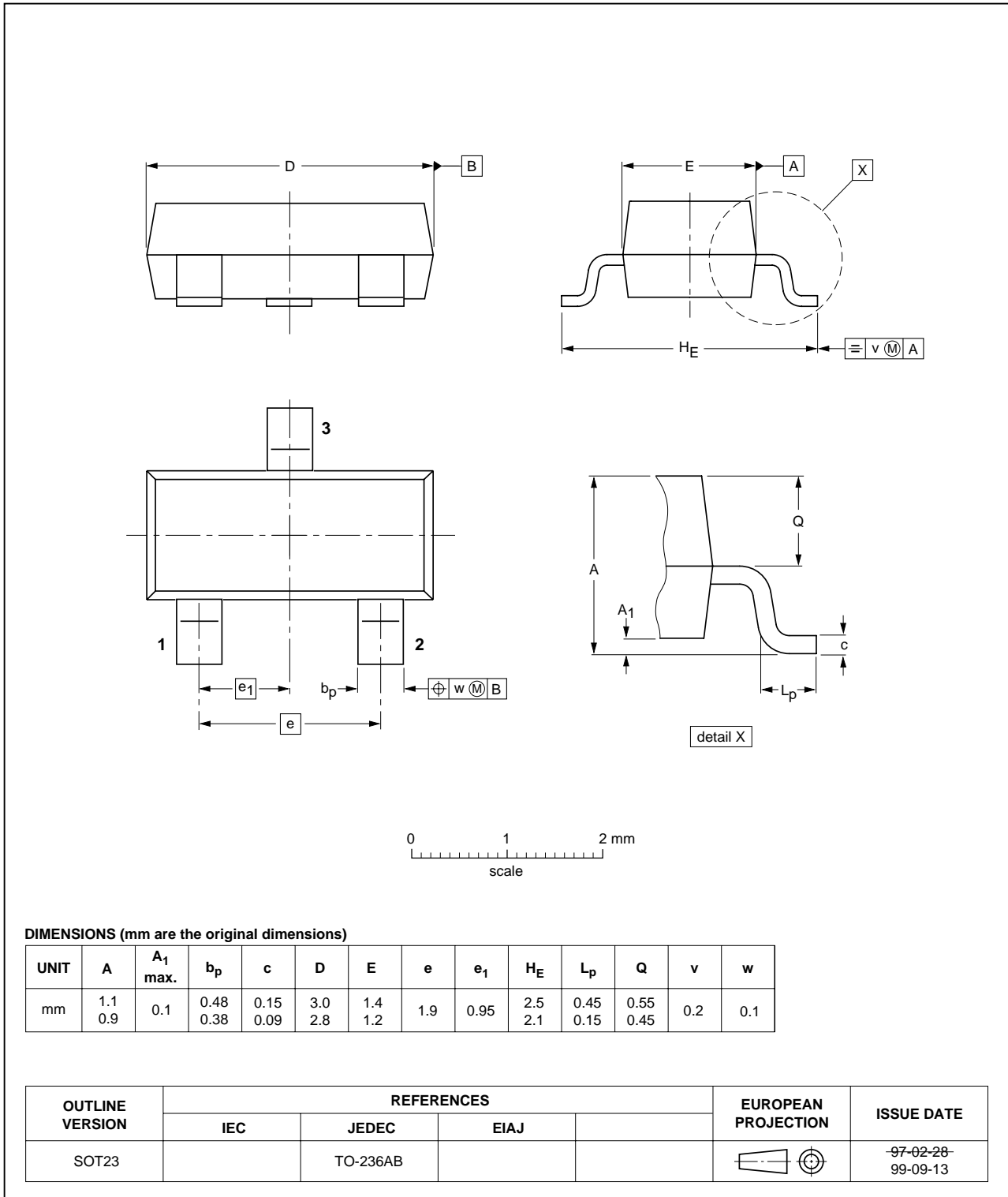
PNP Darlington transistors

BCV26; BCV46

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT23



PNP Darlington transistors

BCV26; BCV46

DATA SHEET STATUS

LEVEL	DATA SHEET STATUS ⁽¹⁾	PRODUCT STATUS ⁽²⁾⁽³⁾	DEFINITION
I	Objective data	Development	This data sheet contains data from the objective specification for product development. Philips Semiconductors reserves the right to change the specification in any manner without notice.
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III	Product data	Production	This data sheet contains data from the product specification. Philips Semiconductors reserves the right to make changes at any time in order to improve the design, manufacturing and supply. Relevant changes will be communicated via a Customer Product/Process Change Notification (CPCN).

Notes

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3. For data sheets describing multiple type numbers, the highest-level product status determines the data sheet status.

DEFINITIONS

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Limiting values definition — Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 60134). 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.

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