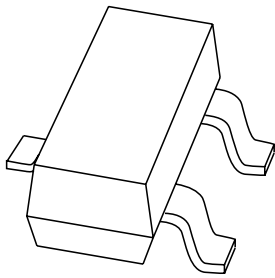


# DATA SHEET



## **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

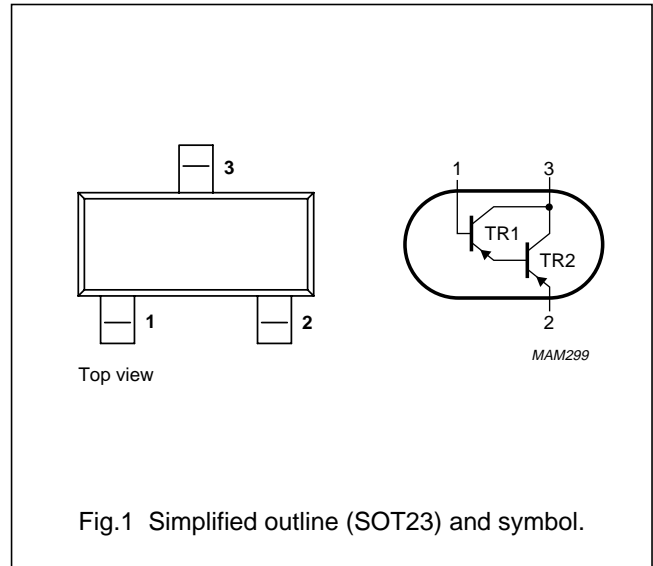
TYPE NUMBER	MARKING CODE <sup>(1)</sup>
BCV26	FD*
BCV46	FE*

### 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 <sub>CBO</sub>	collector-base voltage	open emitter			
	BCV26		–	–40	V
	BCV46		–	–80	V
V <sub>CES</sub>	collector-emitter voltage	V <sub>BE</sub> = 0			
	BCV26		–	–30	V
	BCV46		–	–60	V
V <sub>EBO</sub>	emitter-base voltage	open collector	–	–10	V
I <sub>C</sub>	collector current (DC)		–	–500	mA
I <sub>CM</sub>	peak collector current		–	–800	mA
I <sub>B</sub>	base current (DC)		–	–100	mA
P <sub>tot</sub>	total power dissipation	T <sub>amb</sub> ≤ 25 °C; note 1	–	250	mW
T <sub>stg</sub>	storage temperature		–65	+150	°C
T <sub>j</sub>	junction temperature		–	150	°C
T <sub>amb</sub>	operating ambient temperature		–65	+150	°C

**Note**

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

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
R <sub>th(j-a)</sub>	thermal resistance from junction to ambient	note 1	500	K/W

**Note**

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

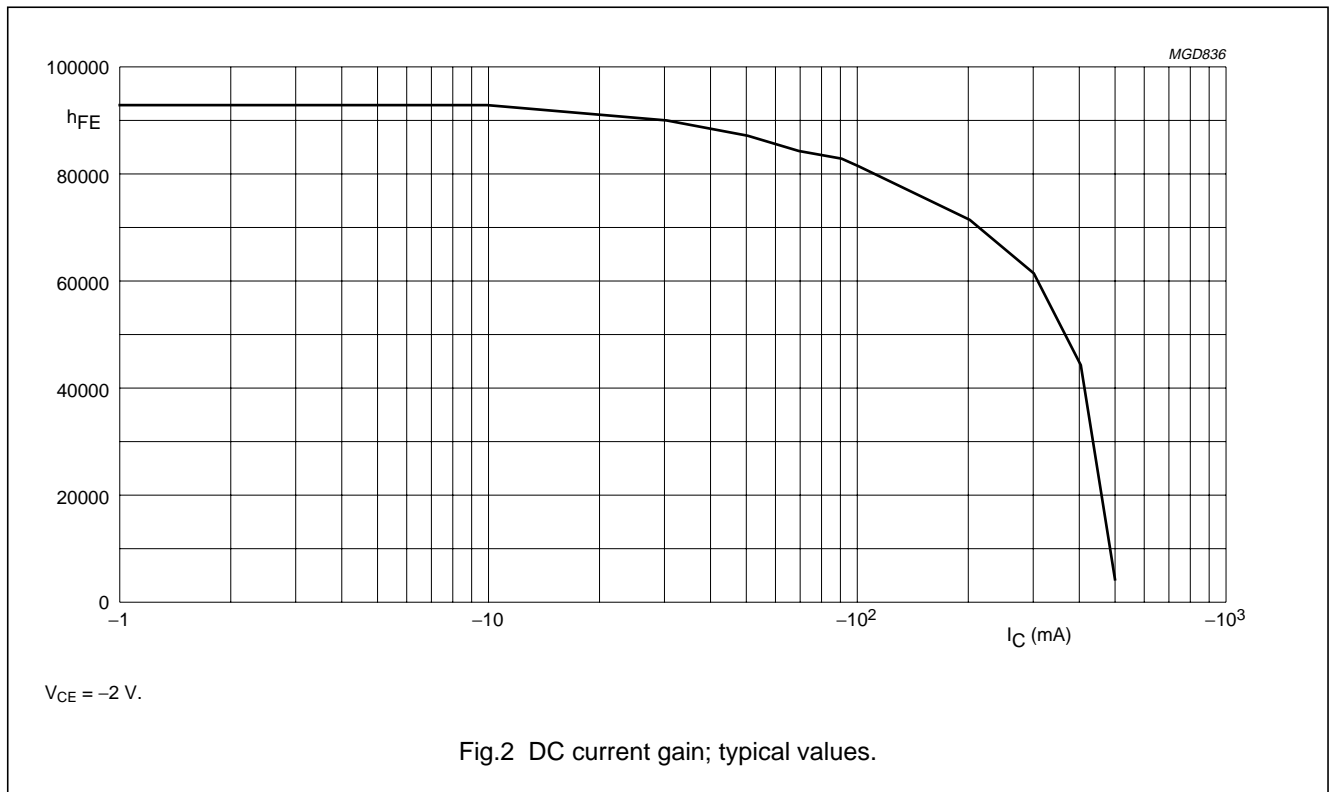
PNP Darlington transistors

BCV26; BCV46

**CHARACTERISTICS**

T<sub>amb</sub> = 25 °C unless otherwise specified.

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



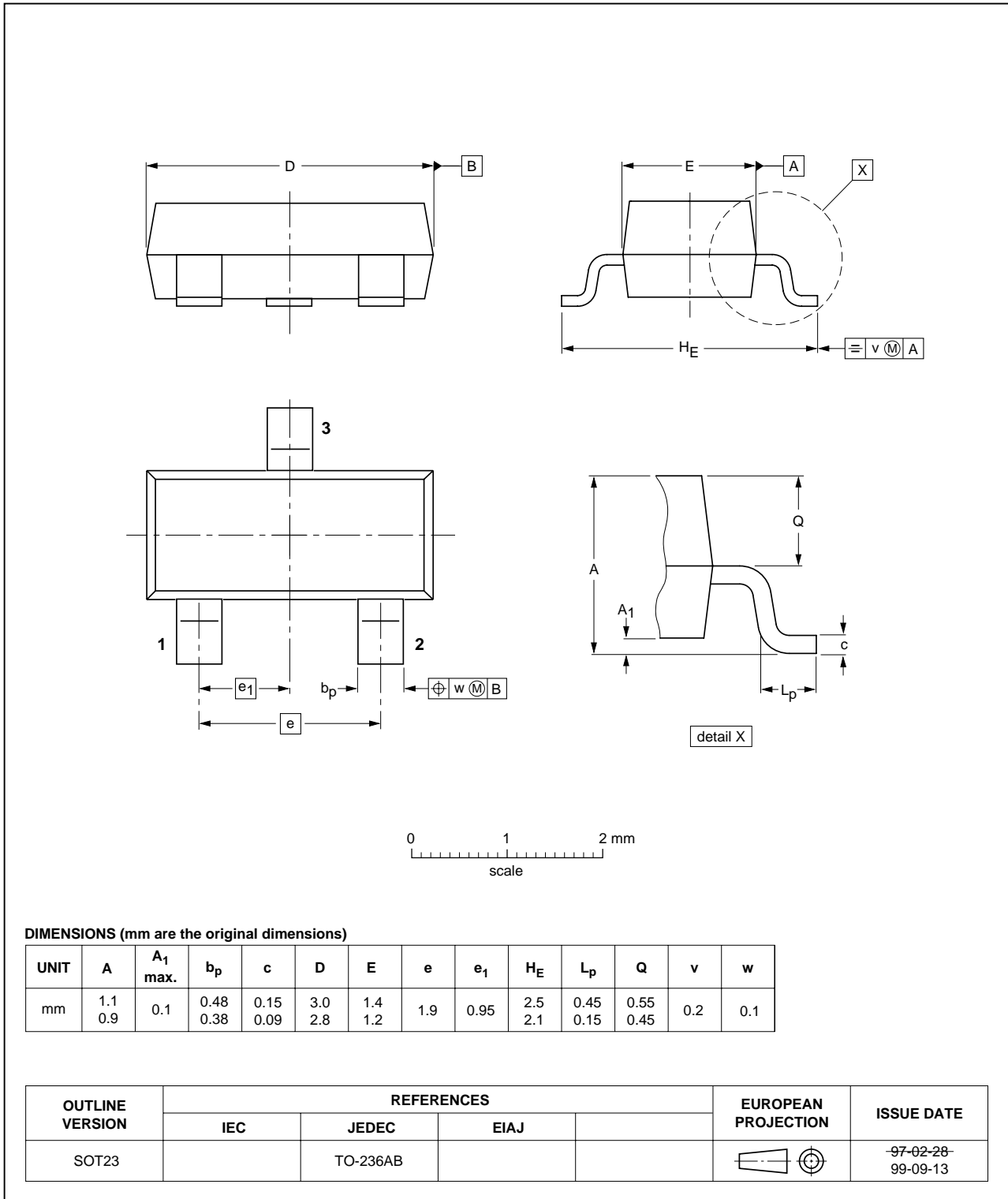
PNP Darlington transistors

BCV26; BCV46

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT23



## PNP Darlington transistors

## BCV26; BCV46

## DATA SHEET STATUS

LEVEL	DATA SHEET STATUS <sup>(1)</sup>	PRODUCT STATUS <sup>(2)(3)</sup>	DEFINITION
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Printed in The Netherlands

R75/05/pp7

Date of release: 2004 Jan 13

Document order number: 9397 750 12401

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