BCV26/BCV46

Darlington Amplifier Transistors(PNP)

FEATURES

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

APPLICATIONS

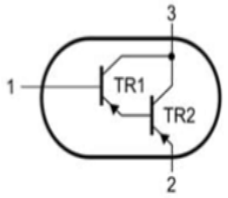
- Where very high amplification is required.

SOT-23

1. BASE
2. EMITTER
3. COLLECTOR

MARKING

TYPE NUMBER	MARKING CODE
BCV26	FD
BCV46	FE



LIMITING VALUES

In accordance with the Absolute Maximum Rating System .

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	$T_{amb} \leq 25$ °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
$R_{th\ j\text{-}a}$	thermal resistance fro junction to ambien	note 1	500	K/W

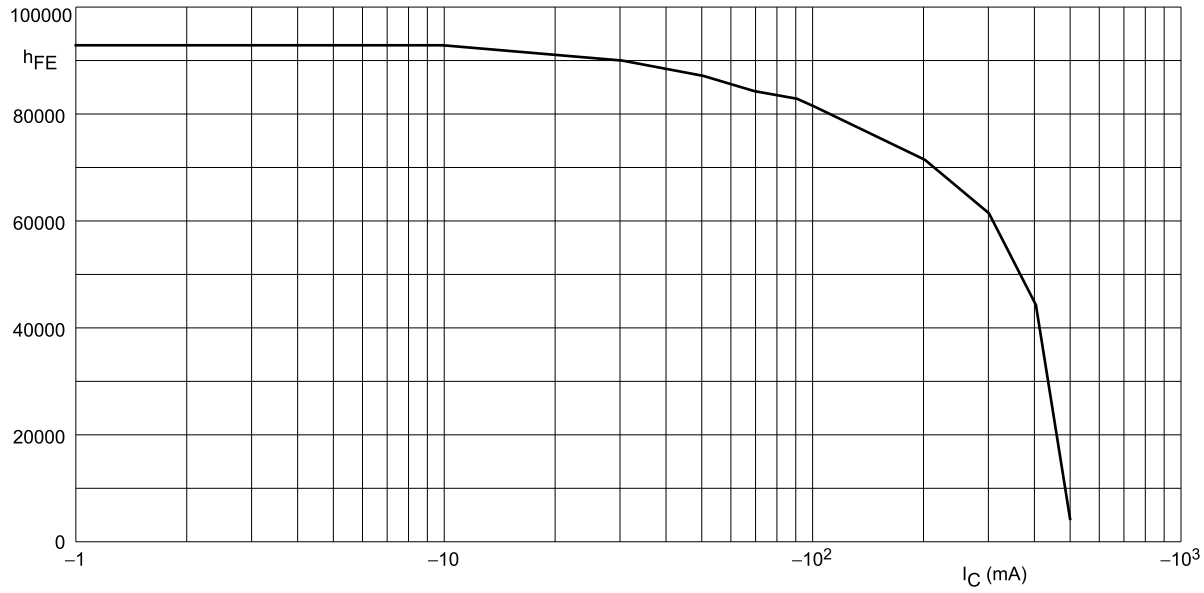
Note

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

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				
	BCV26		4000	–	–	
	BCV46		2000	–	–	
	DC current gain	I_C = –10 mA; V_{CE} = –5 V				
	BCV26		10000	–	–	
	BCV46		4000	–	–	
	DC current gain	I_C = –100 mA; V_{CE} = –5 V				
	BCV26		20000	–	–	
	BCV46		10000	–	–	
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
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

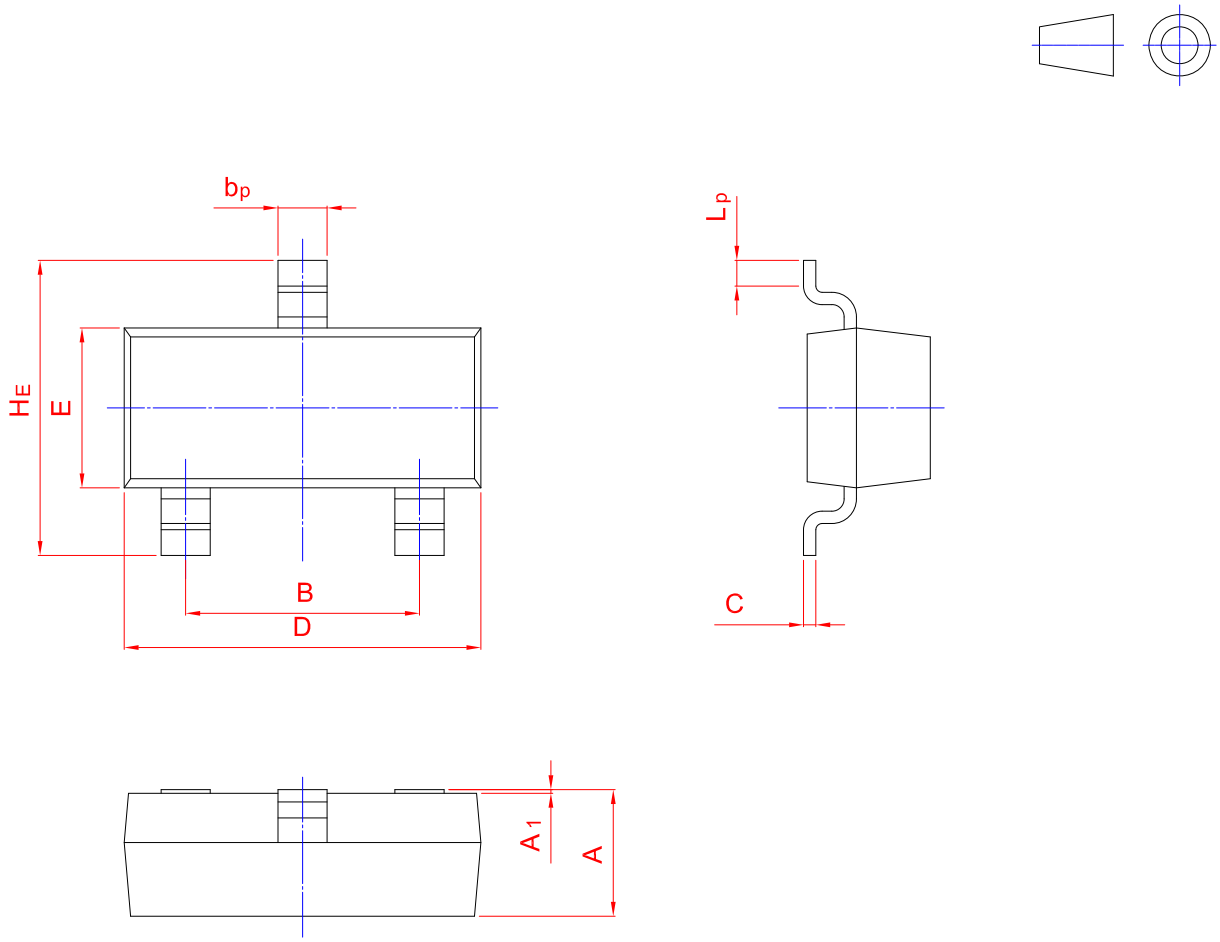


V_{CE} = –2 V.

DC current gain; typical values.

PACKAGE OUTLINE

Plastic surface mounted package



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20