

SOT-23 Plastic-Encapsulate Transistors

BCV26,BCV46 PNP Darlington transistors

FEATURES

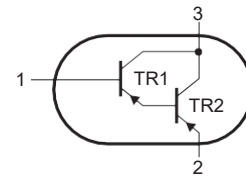
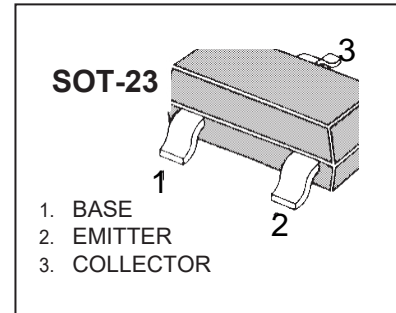
- High current (max. 500 mA)
- Low voltage (max. 60 V)
- Very high DC current gain (min. 10000).

APPLICATIONS

- Where very high amplification is required.

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 _{CB0}	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

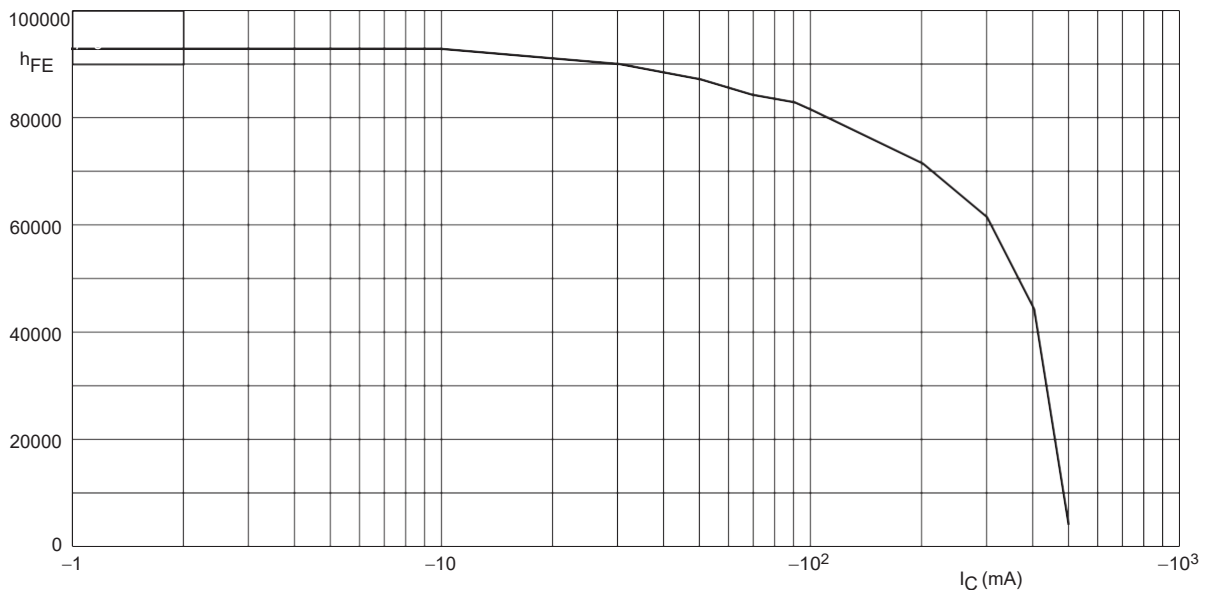
Note

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

CHARACTERISTICS

$T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
I_{CBO}	collector cut-off current					
	BCV26	$I_E = 0; V_{CB} = -30\text{ V}$	–	–	–100	nA
	BCV46	$I_E = 0; V_{CB} = -60\text{ V}$	–	–	–100	nA
I_{EBO}	emitter cut-off current	$I_C = 0; V_{EB} = -10\text{ V}$	–	–	–100	nA
h_{FE}	DC current gain	$I_C = -1\text{ mA}; V_{CE} = -5\text{ V}$				
	BCV26		4000	–	–	
	BCV46		2000	–	–	
	DC current gain	$I_C = -10\text{ mA}; V_{CE} = -5\text{ V}$				
	BCV26		10000	–	–	
	BCV46		4000	–	–	
	DC current gain	$I_C = -100\text{ mA}; V_{CE} = -5\text{ V}$				
	BCV26		20000	–	–	
	BCV46		10000	–	–	
V_{CEsat}	collector-emitter saturation voltage	$I_C = -100\text{ mA}; I_B = -0.1\text{ mA}$	–	–	–1	V
V_{BEsat}	base-emitter saturation voltage	$I_C = -100\text{ mA}; I_B = -0.1\text{ mA}$	–	–	–1.5	V
V_{BEon}	base-emitter on-state voltage	$I_C = -10\text{ mA}; V_{CE} = -5\text{ V}$	–	–	–1.4	V
f_T	transition frequency	$I_C = -30\text{ mA}; V_{CE} = -5\text{ V}; f = 100\text{ MHz}$	–	220	–	MHz



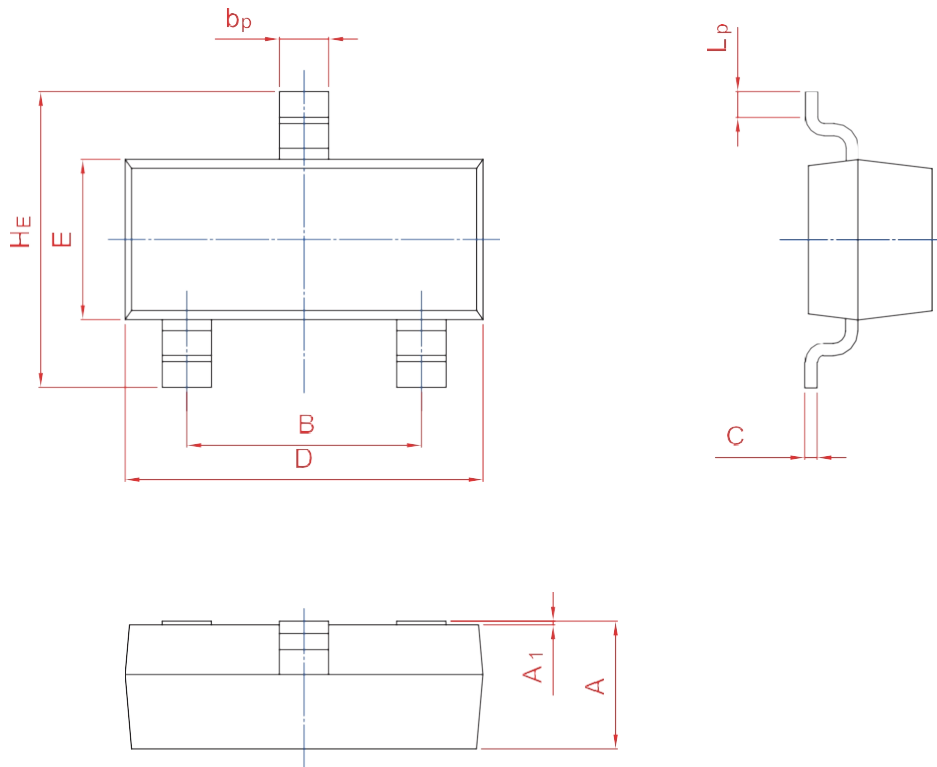
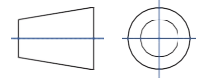
$V_{CE} = -2\text{ V}$.

DC current gain; typical values.

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b_p	C	D	E	HE	A_1	L_p
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20