

Features

- NPN Complements to BCX54,BCX55,BCX56
- Low Voltage
- High Current

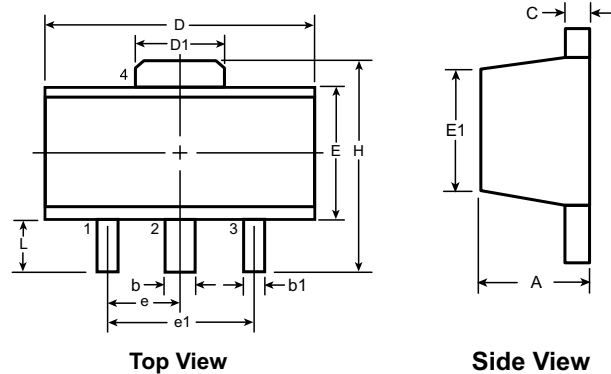
hFE Classification

TYPE	BCX51	BCX51-10	BCX51-16
Marking	AA	AC	AD

TYPE	BCX52	BCX52-10	BCX52-16
Marking	AE	AG	AM

TYPE	BCX53	BCX53-10	BCX53-16
Marking	AH	AK	AL

SOT-89 PACKAGE OUTLINE



Symbol		A	b	b1	C	D	D1	E	E1	e	e1	H	L
Dimensions (mm)	MIN	1.40	0.44	0.36	0.3	4.40	1.50	2.29	2.00*	1.50 BSC	3.00 BSC	3.94	0.89
	NOM	-	-	-	-	-	-	-	-			-	-
	MAX	1.60	0.56	0.48	0.5	4.60	1.75	2.60	2.29			4.25	1.20

Dimensions in mm

Absolute Maximum Ratings Ta = 25°C

Parameter		Symbol	Rating	Unit
Collector-base voltage	BCX51	V _{CBO}	-45	V
	BCX52		-60	V
	BCX53		-100	V
Collector-emitter voltage	BCX51	V _{CEO}	-45	V
	BCX52		-60	V
	BCX53		-80	V
Emitter-base voltage		V _{EBO}	-5	V
Collector current		I _C	-1	A
Peak collector current		I _{CM}	-1.5	A
Peak base current		I _{BM}	-200	mA
Total power dissipation		P _{tot}	1.3	W
Storage temperature		T _{stg}	-65 to +150	°C
Junction temperature		T _j	150	°C
Operating ambient temperature		T _{amb}	-65 to +150	°C
Thermal resistance from junction to ambient		R _{th(j-a)}	94	K/W
Thermal resistance from junction to solder point		R _{th(j-s)}	14	K/W

BCX51/BCX52/BCX53

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	ICBO	V _{CB} = -30 V, I _E = 0			-100	nA
		V _{CB} = -30 V, I _E = 0; T _j = 125°C			-10	uA
Emitter cutoff current	IEBO	VEB = -5 V, I _C = 0			-100	nA
DC current gain	hFE	I _C = -5 mA; V _{CE} = -2 V	63			
		I _C = -150 mA; V _{CE} = -2 V	63		250	
		I _C = -500 mA; V _{CE} = -2 V	40			
DC current gain BCX51-10,BCX52-10,BCX53-10 BCX51-16,BCX52-16,BCX53-16	hFE	I _C = -150 mA; V _{CE} = -2 V	63		160	
		I _C = -150 mA; V _{CE} = -2 V	100		250	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -500 mA; I _B = -50 mA			-500	mV
Base to emitter voltage	V _{BE}	I _C = -500 mA; V _{CE} = -2 V			-1	V
Transition frequency	f _T	I _C = -10 mA; V _{CE} = -5 V; f = 100 MHz		50		MHz

RATING AND CHARACTERISTIC CURVES (BCX51/BCX52/BCX53)

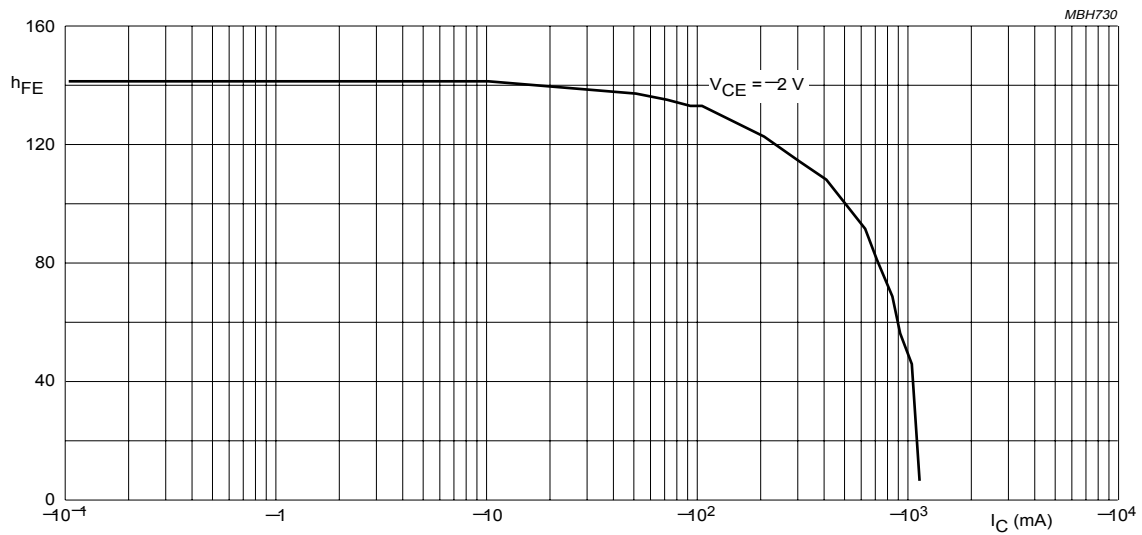


Fig.1 DC current gain; typical values.