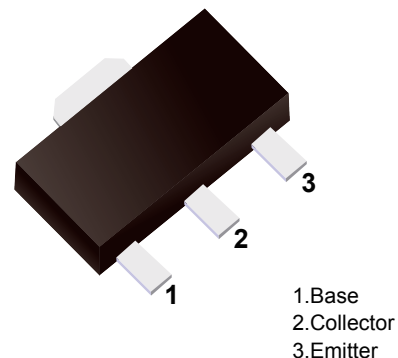


■ PNP Transistors

■ Features

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



■ Simplified outline(SOT-89)

■ Absolute Maximum Ratings $T_a = 25^{\circ}\text{C}$

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	$^{\circ}\text{C}$
Junction temperature		T_j	150	$^{\circ}\text{C}$
Operating ambient temperature		T_{amb}	-65 to +150	$^{\circ}\text{C}$
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

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	ICBO	$V_{CB} = -30\text{ V}, I_E = 0$			-100	nA
		$V_{CB} = -30\text{ V}, I_E = 0; T_j = 125^\circ\text{C}$			-10	uA
Emitter cutoff current	IEBO	$V_{EB} = -5\text{ V}, I_C = 0$			-100	nA
DC current gain	hFE	$I_C = -5\text{ mA}; V_{CE} = -2\text{ V}$	63			
		$I_C = -150\text{ mA}; V_{CE} = -2\text{ V}$	63		250	
		$I_C = -500\text{ mA}; V_{CE} = -2\text{ V}$	40			
DC current gain BCX51-10,BCX52-10,BCX53-10 BCX51-16,BCX52-16,BCX53-16	hFE	$I_C = -150\text{ mA}; V_{CE} = -2\text{ V}$	63		160	
		$I_C = -150\text{ mA}; V_{CE} = -2\text{ V}$	100		250	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{ mA}; I_B = -50\text{ mA}$			-500	mV
Base to emitter voltage	V_{BE}	$I_C = -500\text{ mA}; V_{CE} = -2\text{ V}$			-1	V
Transition frequency	f_T	$I_C = -10\text{ mA}; V_{CE} = -5\text{ V}; f = 100\text{ MHz}$		50		MHz

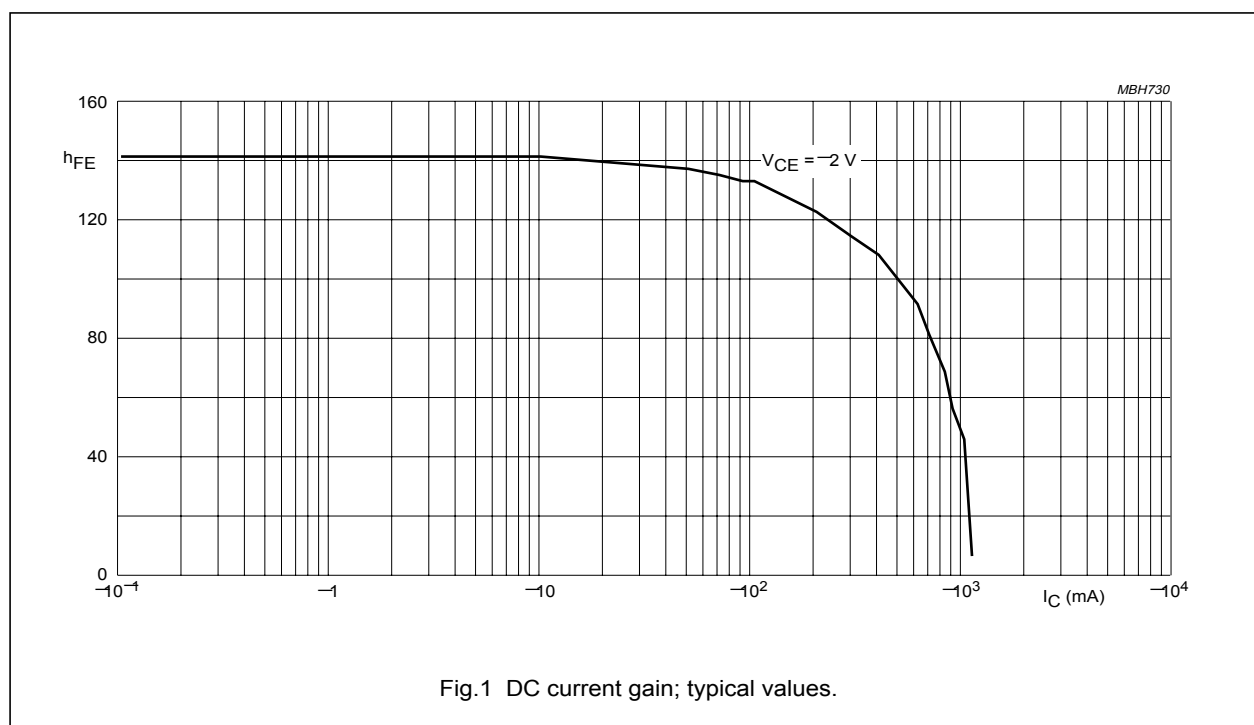
■ hFE Classification

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

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

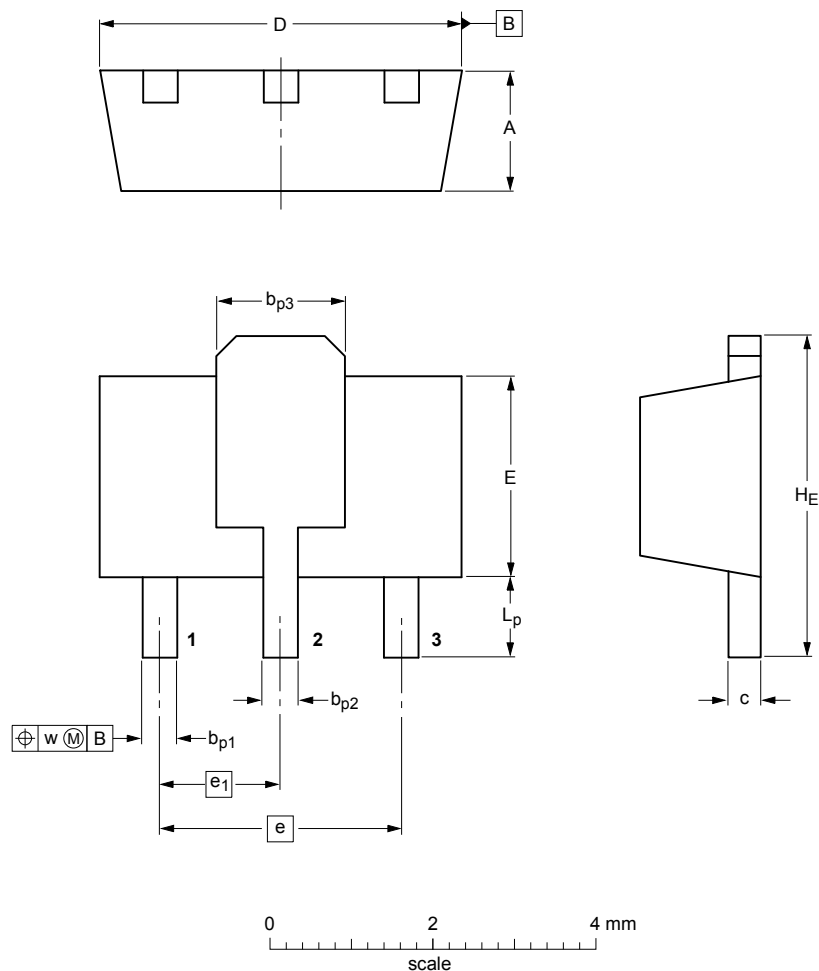
TYPE	BCX53	BCX53-10	BCX53-16
Marking	AH	AK	ALK510

■ Typical Characteristics



Package Outline

SOT-89



DIMENSIONS (mm are the original dimensions)

UNIT	A	b _{p1}	b _{p2}	b _{p3}	c	D	E	e	e ₁	H _E	L _p	w
mm	1.6 1.4	0.48 0.35	0.53 0.40	1.8 1.4	0.44 0.23	4.6 4.4	2.6 2.4	3.0	1.5	4.25 3.75	1.2 0.8	0.13

Summary of Packing Options

Package	Package Description	Packing Quantity	Industry Standard
SOT-89	Tape/Reel, 7" reel	1000	EIA-481-1