

SOT-89 Plastic-Encapsulate Transistors

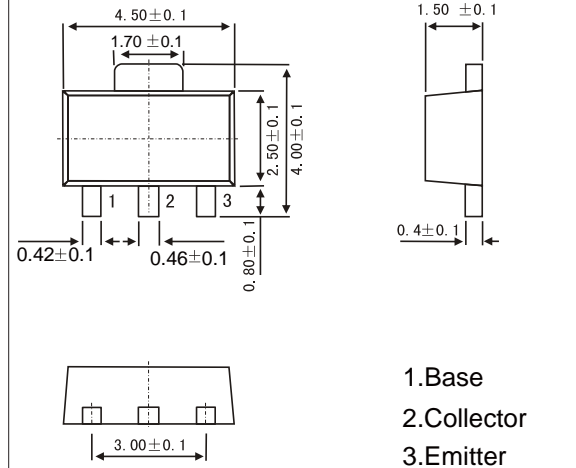
Features

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

MECHANICAL DATA

- Case style:SOT-89molded plastic
- Mounting position:any

SOT-89



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector-base voltage	BCX51 BCX52 BCX53	V _{CB0} -45 -60 -100	V
Collector-emitter voltage	BCX51 BCX52 BCX53	V _{CEO} -45 -60 -80	V
Emitter-base voltage	V _{EB0}	-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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I _{CBO}	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	I _{EB0}	V _{EB} = -5 V, I _C = 0			-100	nA
DC current gain	h _{FE}	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	h _{FE}	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

RATINGS AND CHARACTERISTIC CURVES

■ 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

■ Typical Characteristics

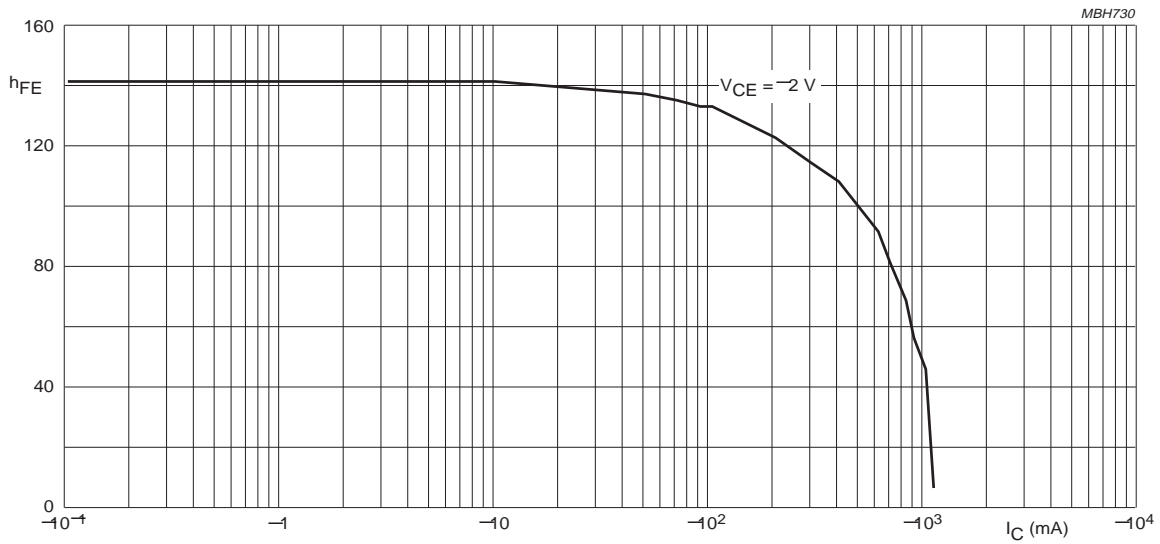


Fig.1 DC current gain; typical values.