

PNP small signal transistor

BCX71H

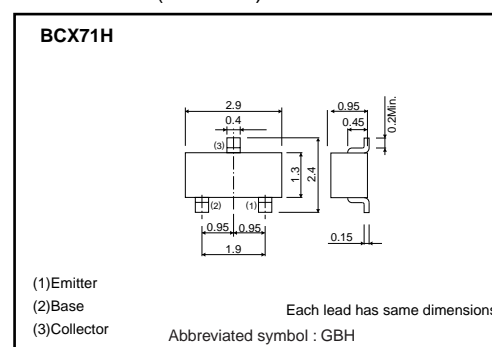
●Features

- 1) Ideal for switching and AF amplifier applications.
- 2) Complements the BCX70.

●Packaging specifications

Type	Package	Taping
	Code	T116
	Basic ordering unit (pieces)	3000
BCX71H		○

●Dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CB0}	-45	V
Collector-emitter voltage	V_{CE0}	-45	V
Emitter-base voltage	V_{EB0}	-5	V
Collector current	I_c	-0.2	A
Collector power dissipation	P_c	0.2	W
		0.35	W *
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to 150	°C

* Mounted on a 7×5×0.6 mm CERAMIC SUBSTRATE

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV_{CEO}	-45	-	-	V	$I_c = -2\text{mA}$
Emitter-base breakdown voltage	BV_{EBO}	-5	-	-	V	$I_c = -10\mu\text{A}$
Collector-emitter cutoff current	I_{CES}	-	-	-0.1	μA	$V_{CE} = -45\text{V}$
Emitter-base cutoff current	I_{EBO}	-	-	-0.1	μA	$V_{EB} = -4\text{V}$
Collector-emitter saturation voltage	$V_{CE(sat)1}$	-	-	-0.25	V	$I_c/I_B = -10\text{mA}/-0.25\text{mA}$
	$V_{CE(sat)2}$	-	-	-0.55	V	$I_c/I_B = -50\text{mA}/-1.25\text{mA}$
Base-emitter saturation voltage	$V_{BE(sat)1}$	-	-	-0.85	V	$I_c/I_B = -10\text{mA}/-0.25\text{mA}$
	$V_{BE(sat)2}$	-	-	-1.05	V	$I_c/I_B = -50\text{mA}/-1.25\text{mA}$
Base-emitter voltage	$V_{BE(on)}$	-0.6	-	-0.75	V	$V_{CE} = -5\text{V}, I_c = -2\text{mA}$
DC current transfer ratio	h_{FE}	140	-	310	-	$V_{CE} = -5\text{V}, I_c = -2\text{mA}$
		80	-	-	-	$V_{CE} = -5\text{V}, I_c = -50\text{mA}$
Transition frequency	f_T	-	180	-	MHz	$V_{CE} = -5\text{V}, I_E = -10\text{mA}, f = 100\text{MHz}$
Collector output capacitance	C_{ob}	-	-	6	pF	$V_{CB} = -10\text{V}, f = 1\text{MHz}$
Noise figure	NF	-	-	6	dB	$V_{CE} = -5\text{V}, I_c = -200\mu\text{A}, f = 1\text{kHz}, R_g = 2\text{k}\Omega$
Collector-base cutoff current	I_{CBO}	-	-	-20	μA	$V_{CB} = -45\text{V}, T_a = 150^\circ\text{C}$

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