PNP small signal transistor

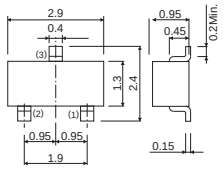
BCX71H

●Features

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

●Dimensions (Unit : mm)

BCX71H



(1)Emitter
(2)Base
(3)Collector

Each lead has same dimensions

Abbreviated symbol : GBH

●Packaging specifications

Type	Package	Taping
	Code	T116
	Basic ordering unit (pieces)	3000
BCX70H		◯

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit	
Collector-base voltage	V_{CBO}	–45	V	
Collector-emitter voltage	V_{CEO}	–45	V	
Emitter-base voltage	V_{EBO}	–5	V	
Collector current	I_C	–0.2	A	
Collector power dissipation	P_C	0.2	W	
		0.35	W	✻
Junction temperature	Tj	150	°C	
Storage temperature	Tstg	–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= –2mA
Emitter-base breakdown voltage	BV_{EBO}	–5	–	–	V	I_C= –10μA
Collector-emitter cutoff current	I_{CES}	–	–	–0.1	μA	V_{CE}= –45V
Emitter-base cutoff current	I_{EBO}	–	–	–0.1	μA	V_{EB}= –4V
Collector-emitter saturation voltage	$V_{CE(sat)1}$	–	–	–0.25	V	I_C/I_B= –10mA/ –0.25mA
	$V_{CE(sat)2}$	–	–	–0.55	V	I_C/I_B= –50mA/ –1.25mA
Base-emitter saturation voltage	$V_{BE(sat)1}$	–	–	–0.85	V	I_C/I_B= –10mA/ –0.25mA
	$V_{BE(sat)2}$	–	–	–1.05	V	I_C/I_B= –50mA/ –1.25mA
Base-emitter voltage	$V_{BE(on)}$	–0.6	–	–0.75	V	V_{CE}= –5V, I_C= –2mA
DC current transfer ratio	h_{FE}	140	–	310	–	V_{CE}= –5V, I_C= –2mA
		80	–	–		V_{CE}= –5V, I_C= –50mA
Transition frequency	f_T	–	180	–	MHz	V_{CE}= –5V, I_E= –10mA, f=100MHz
Collector output capacitance	Cob	–	–	6	pF	V_{CB}= –10V, f=1MHz
Noise figure	NF	–	–	6	dB	V_{CE}= –5V, I_C= –200μA, f=1kHz,Rg=2kΩ
Collector-base cutoff current	I_{CBO}	–	–	–20	μA	V_{CB}= –45V, Ta=150°C

●Electrical characteristics

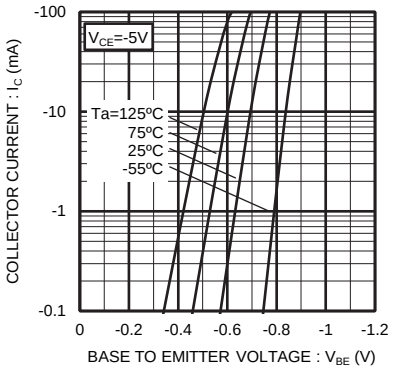


Fig1. Grounded Emitter Propagation Characteristics

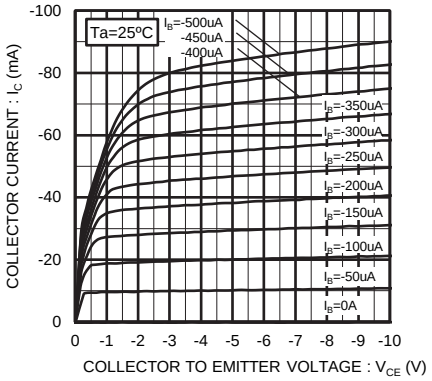


Fig2. Grounded Emitter Output Characteristics

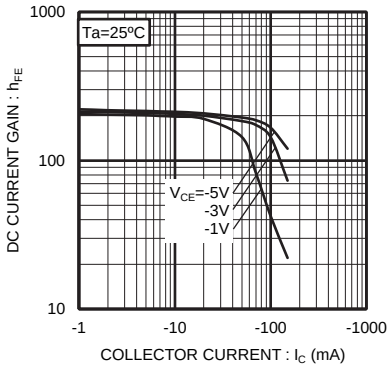


Fig3. DC Current Gain vs. Collector Current (I)

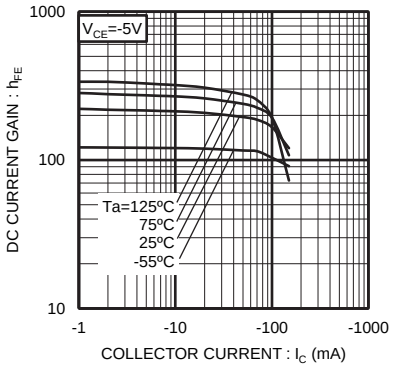


Fig4. DC Current Gain vs. Collector Current (II)

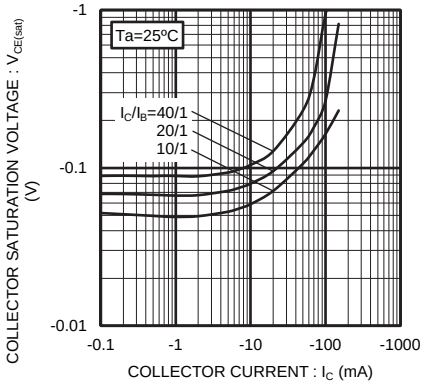


Fig5. Collector Saturation Voltage vs. Collector Current (I)

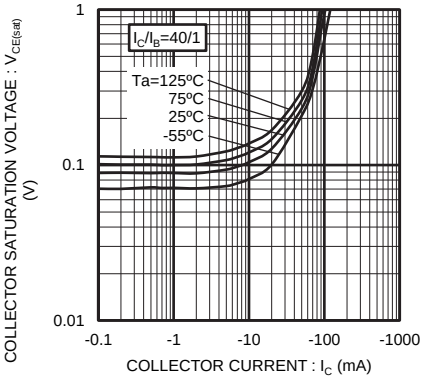


Fig6. Collector Saturation Voltage vs. Collector Current (II)

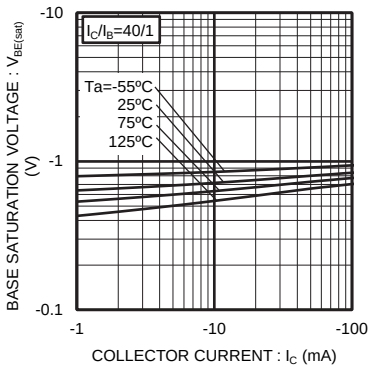


Fig7. Base Saturation Voltage vs. Collector Current

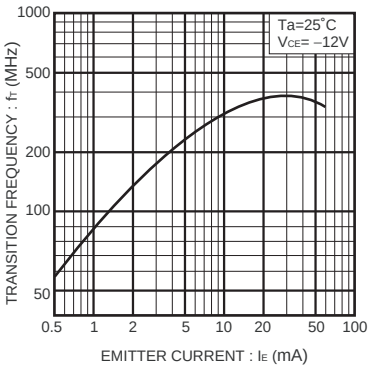


Fig.8 Gain bandwidth product vs. emitter current

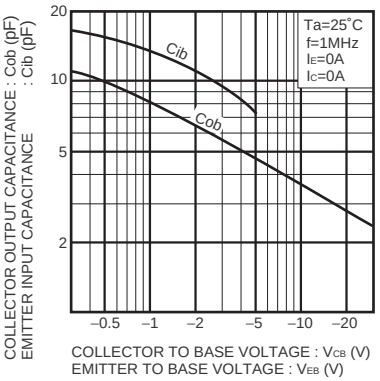


Fig.9 Collector output capacitance vs. collector-base voltage
Emitter inputcapacitance vs. emitter-base voltage

Notes

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