

PNP small signal transistor

BCX17

Small load switch transistor with high gain and Low saturation voltage.

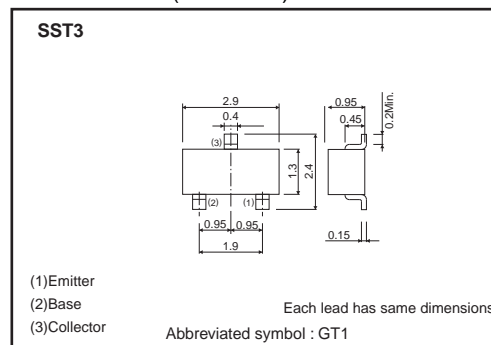
●Features

- (1) High gain and low saturation voltage.
 - (2) Ideal for small load switching applications.
- Complements the BCX19

●Packaging specifications

Type	Package	Taping
	Code	T116
	Basic ordering unit (pieces)	3000
BCX17		○

●Dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-emitter voltage (V _{BE} =0)	V _{CES}	−50	V
Collector-emitter voltage (open base)	V _{CEO}	−45	V
Emitter-base voltage	V _{EBO}	−5	V
Collector current	I _C	−0.5	A
Collector current (peak value)	I _{CM}	−1	A
Collector power dissipation	P _C	0.2	W
		0.35	W *
		0.425	W *2
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	−65 to 150	°C

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

*2 Mounted on a 15×15×0.6 mm CERAMIC SUBSTRATE

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV _{CES}	−50	—	—	V	I _C = −50μA
Collector-emitter breakdown voltage	BV _{CEO}	−45	—	—	V	I _C = −10mA
Emitter-base breakdown voltage	BV _{EBO}	−5	—	—	V	I _E = −50μA
Collector-base cutoff current	I _{CBO}	—	—	−0.1	μA	V _{CB} = −20V
Emitter-base cutoff current	I _{EBO}	—	—	−10	μA	V _{EB} = −5V
Collector-emitter saturation voltage	V _{CE(sat)}	—	—	−0.62	V	I _C /I _B = −500mA/ −50mA
Base-emitter voltage	V _{BE(on)}	—	—	−1.2	V	V _{CE} /I _C = −1V/ −500mA
DC current transfer ratio	h _{FE}	100	—	600	—	V _{CE} = −1V, I _C = −100mA
		70	—	—		V _{CE} = −1V, I _C = −300mA
		40	—	—		V _{CE} = −1V, I _C = −500mA
Transition frequency	f _T	—	200	—	MHz	V _{CE} = −5V, I _E = −20mA, f = 100MHz
Collector-base cutoff current	I _{CBO}	—	—	−5	μA	V _{CB} = −20V, T _a = 150°C

●Electrical characteristics curves

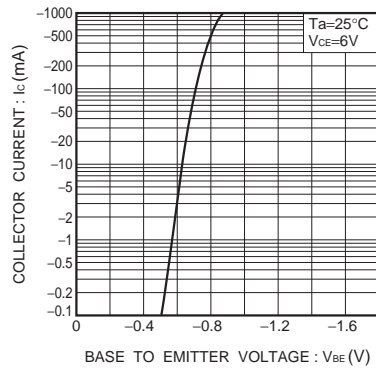


Fig.1 Grounded emitter propagation characteristics

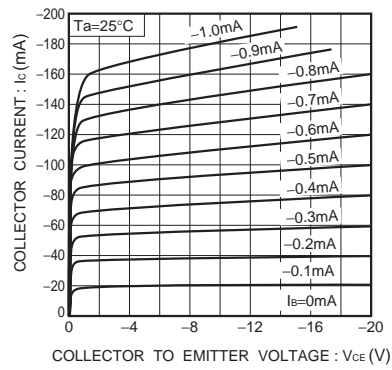


Fig.2 Grounded emitter output characteristics (I)

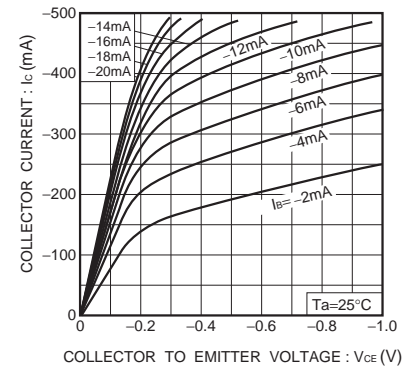


Fig.3 Grounded emitter output characteristics (II)

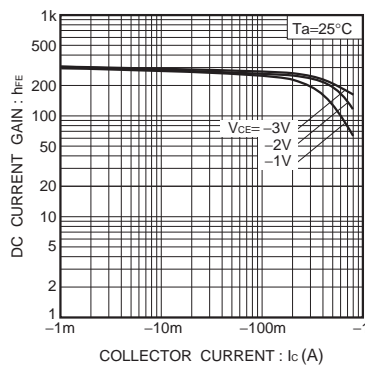


Fig.4 DC current gain vs. collector current

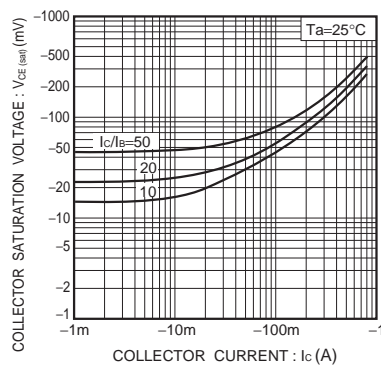


Fig.5 Collector-emitter saturation voltage vs. collector current

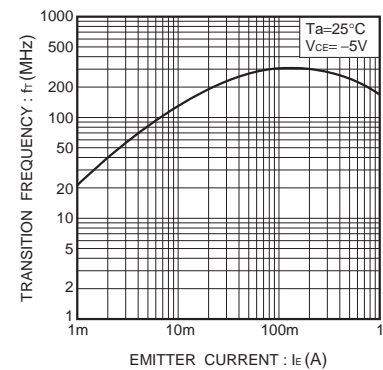


Fig.6 Gain bandwidth product vs. emitter current

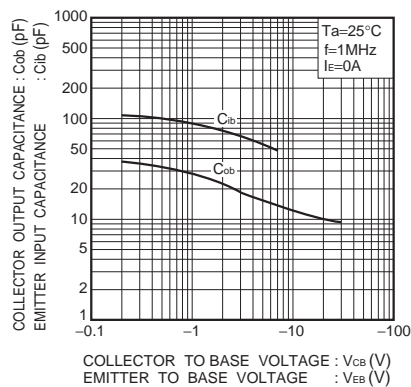


Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

Notes

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