NPN small signal transistor

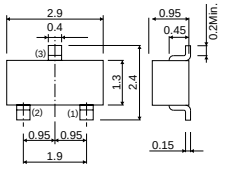
BCX19

●Features

1) High gain and low saturation voltage.
2) Complements the BCX17.

●Dimensions (Unit : mm)

BCX19



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

Each lead has same dimensions

Abbreviated symbol : GU1

●Packaging specifications

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

●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	Tj	150	°C	
Storage temperature	Tstg	−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}= 1V, I_C= 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	–	250	–	MHz	V_{CE}= 5V, I_E= 20mA, f=100MHz
Collector-base cutoff current	I_{CBO}	–	–	5	μA	V_{CB}= 20V, Ta=150°C

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