2SC5121

Silicon NPN triple diffusion planar type

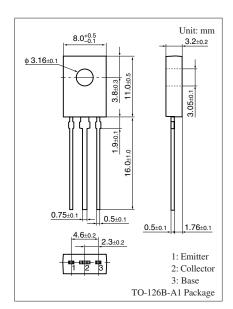
For general amplification

■ Features

- ullet High collector-base voltage (Emitter open) V_{CBO}
- High collector-emitter voltage (Base open) V_{CEO}
- Small collector output capacitance (Common base, input open circuited) C_{ob}
- TO-126B package which requires no insulation plate for installation to the heat sink

■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V _{CBO}	400	V	
Collector-emitter voltage (Base open)	V _{CEO}	400	V	
Emitter-base voltage (Collector open)	V_{EBO}	7	V	
Collector current	I_C	70	mA	
Peak collector current	I_{CP}	100	mA	
Collector power dissipation	P _C	1.2	W	
Junction temperature	T_{j}	150	°C	
Storage temperature	T _{stg}	-55 to +150	°C	

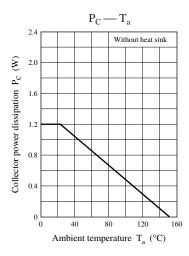


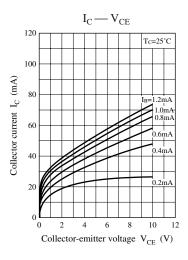
■ Electrical Characteristics $T_a = 25$ °C ± 3 °C

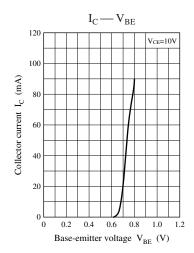
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = 100 \ \mu A, I_B = 0$	400			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 1 \mu A, I_C = 0$	7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 300 \text{ V}, I_{E} = 0$			10	μΑ
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = 380 \text{ V}, I_B = 0, T_a = 80^{\circ}\text{C}$			10	μΑ
Forward current transfer ratio *	h _{FE}	$V_{CE} = 10 \text{ V}, I_{C} = 5 \text{ mA}$	30		100	
Collector-emitter saturation voltage *	V _{CE(sat)}	$I_C = 50 \text{ mA}, I_B = 5 \text{ mA}$			1.2	V
Transition frequency	f_T	$V_{CB} = 10 \text{ V}, I_E = -10 \text{ mA}, f = 200 \text{ MHz}$	50	80		MHz
Collector output capacitance	C _{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		4	8	pF
(Common base, input open circuited)						

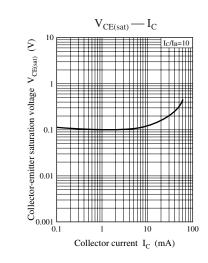
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

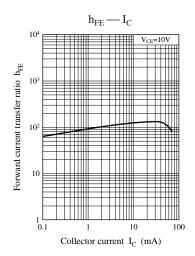
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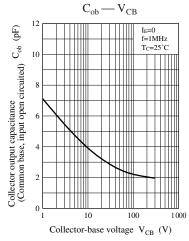












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