

# 2SC5121

Silicon NPN triple diffusion planar type

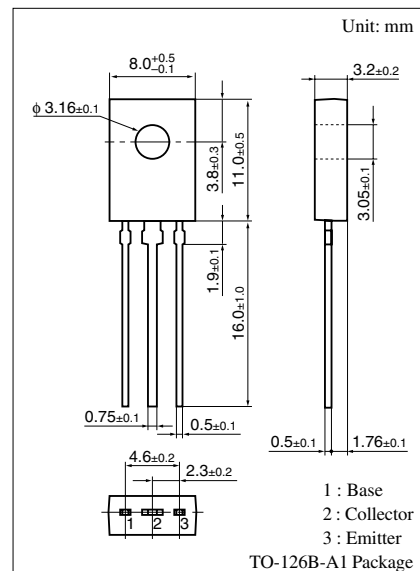
For general amplification

## ■ Features

- High collector to base voltage  $V_{CBO}$
- High collector to emitter voltage  $V_{CEO}$
- Small collector output capacitance  $C_{ob}$
- TO-126B package, which is fitted to a heat sink without any insulation parts

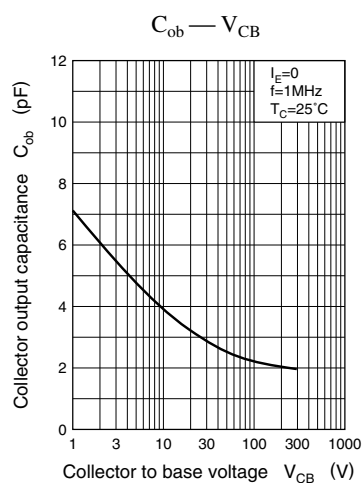
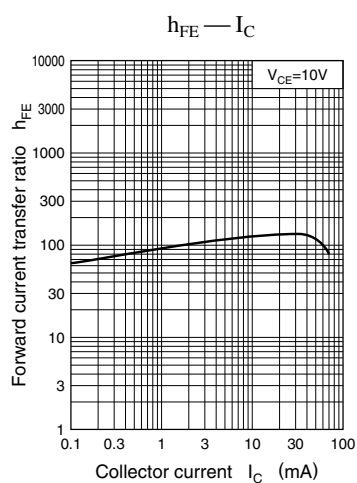
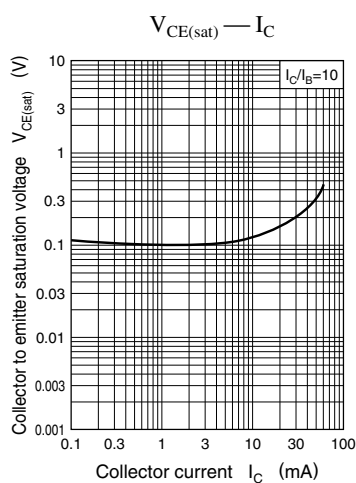
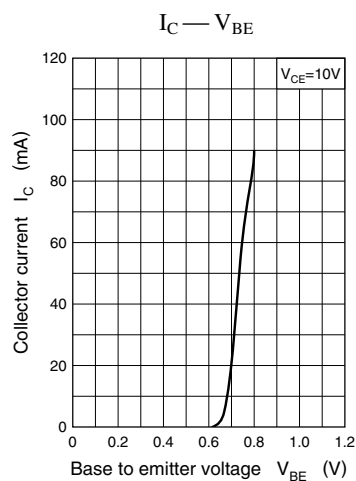
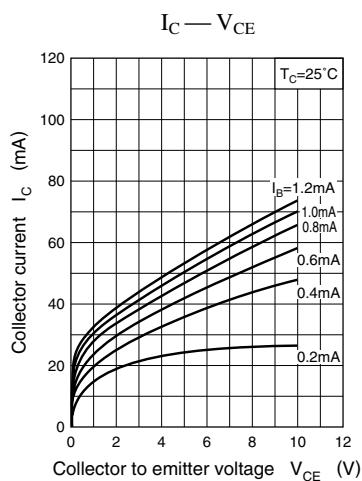
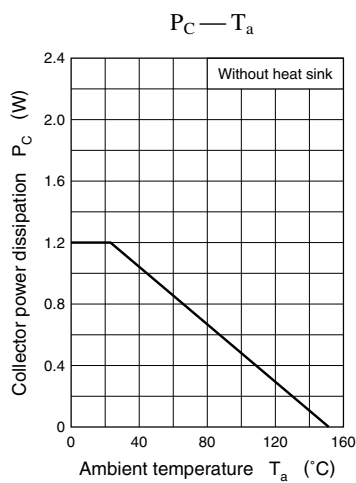
## ■ Absolute Maximum Ratings $T_C = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	400	V
Collector to emitter voltage	$V_{CEO}$	400	V
Emitter to base voltage	$V_{EBO}$	7	V
Peak collector current	$I_{CP}$	100	mA
Collector current	$I_C$	70	mA
Collector power dissipation	$P_C$	1.2	W
Junction temperature	$T_J$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$



## ■ Electrical Characteristics $T_C = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 300\text{ V}, I_E = 0$			10	$\mu\text{A}$
	Hot $I_{CEO}$	$V_{CE} = 380\text{ V}, I_B = 0, T_a = 80^\circ\text{C}$			10	$\mu\text{A}$
Collector to emitter voltage	$V_{CEO}$	$I_C = 100\text{ }\mu\text{A}, I_B = 0$	400			V
Emitter to base voltage	$V_{EBO}$	$I_E = 1\text{ }\mu\text{A}, I_C = 0$	7			V
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 10\text{ V}, I_C = 5\text{ mA}$	30		150	
Collector to 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



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