

# 2SB1221

## Silicon PNP epitaxial planar type

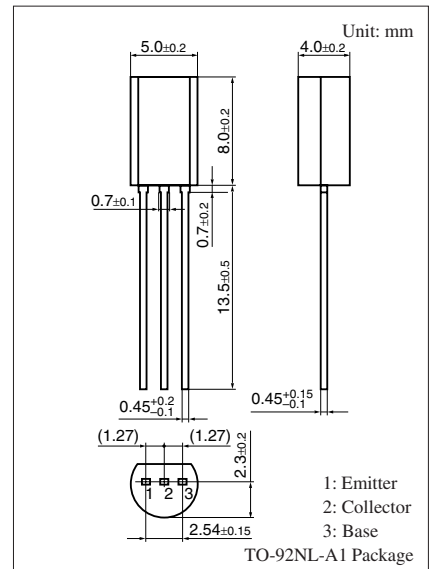
For general amplification

### ■ Features

- Low collector-emitter saturation voltage  $V_{CE(sat)}$
- Allowing supply with the radial taping

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	-250	V
Collector-emitter voltage (Base open)	$V_{CEO}$	-200	V
Emitter-base voltage (Collector open)	$V_{EBO}$	-5	V
Collector current	$I_C$	-70	mA
Peak collector current	$I_{CP}$	-100	mA
Collector power dissipation	$P_C$	1	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$



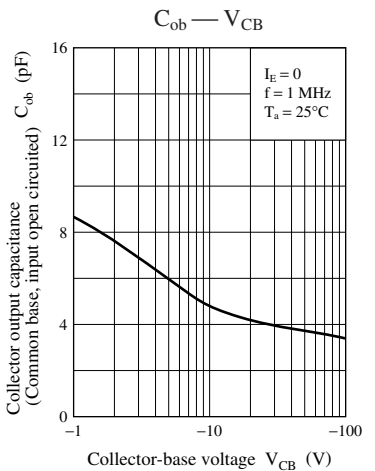
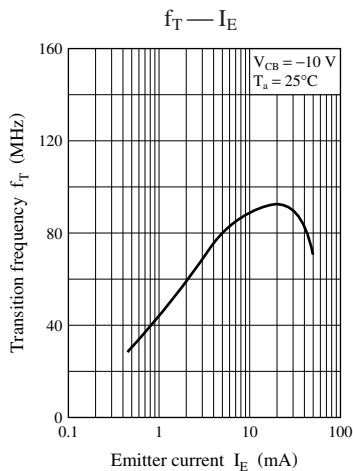
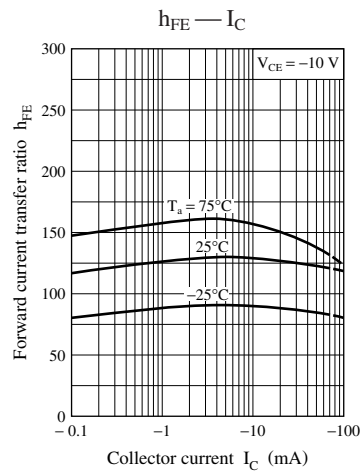
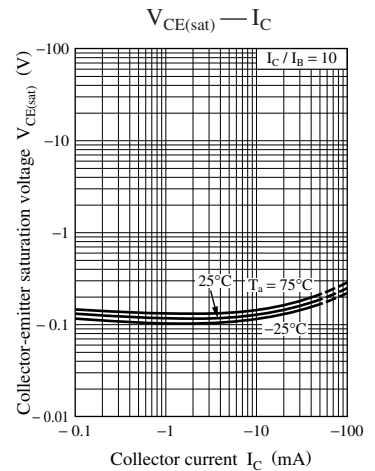
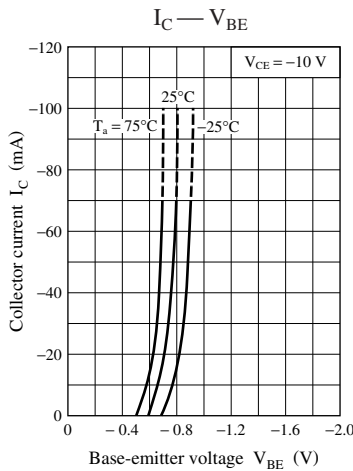
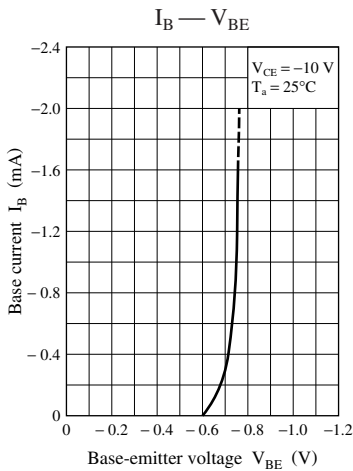
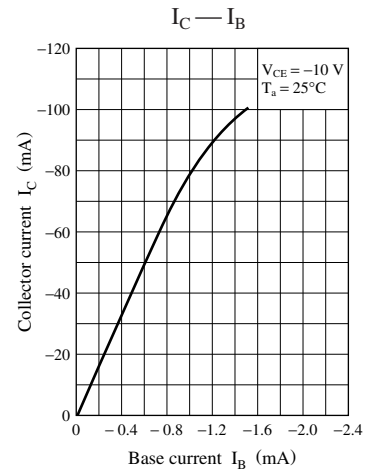
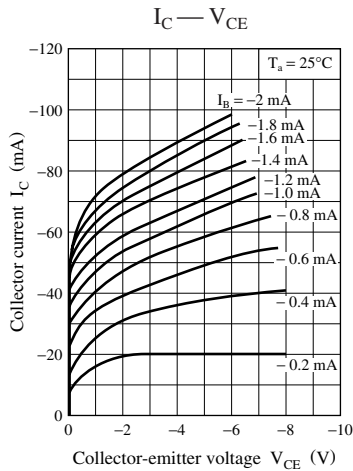
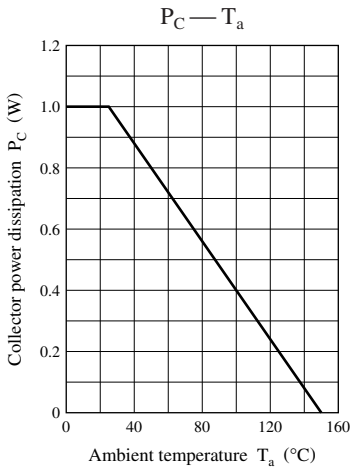
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

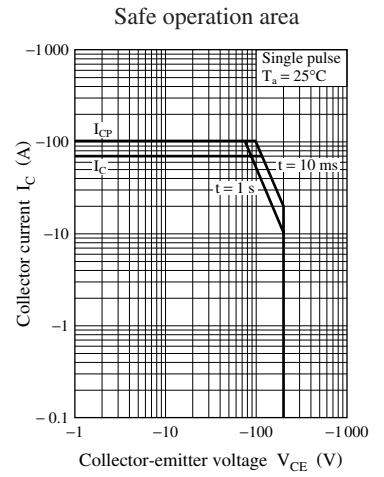
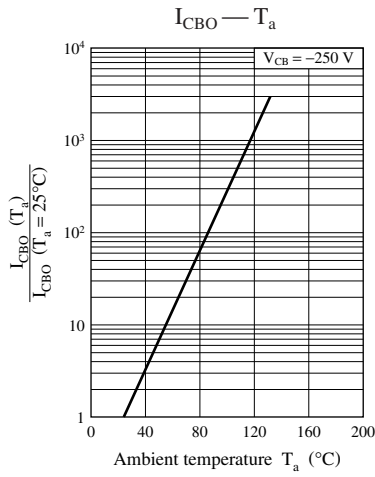
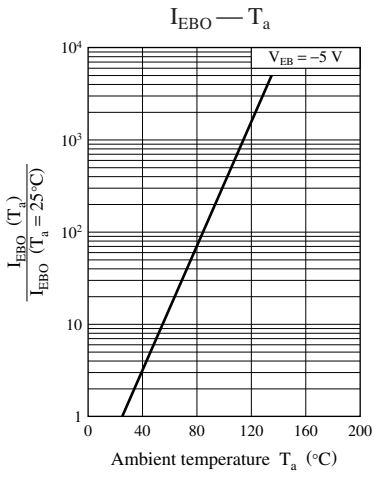
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	$V_{CEO}$	$I_C = -100 \mu\text{A}$ , $I_B = 0$	-200			V
Emitter-base voltage (Collector open)	$V_{EBO}$	$I_E = -1 \mu\text{A}$ , $I_C = 0$	-5			V
Forward current transfer ratio *	$h_{FE}$	$V_{CE} = -10 \text{ V}$ , $I_C = -5 \text{ mA}$	30		220	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50 \text{ mA}$ , $I_B = -5 \text{ mA}$			-1.5	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 (Common base, input open circuited)	$C_{ob}$	$V_{CB} = -10 \text{ V}$ , $I_E = 0$ , $f = 1 \text{ MHz}$		5	10	pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. \*: Rank classification

Rank	P	Q	R
$h_{FE}$	30 to 100	60 to 150	100 to 220





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