

2SB1221

Silicon PNP epitaxial planar type

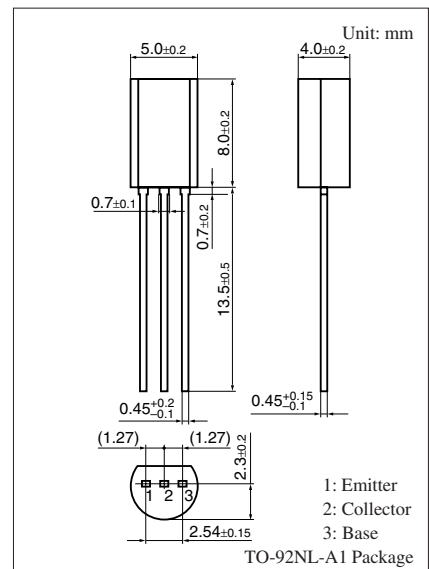
For general amplification

■ 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	$^\circ\text{C}$



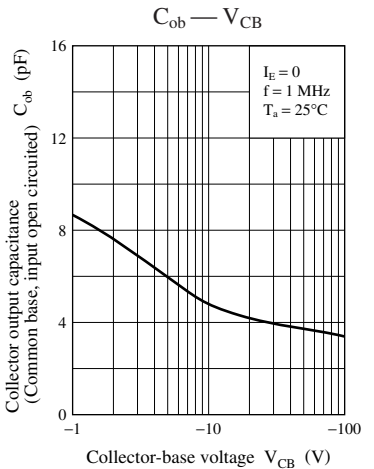
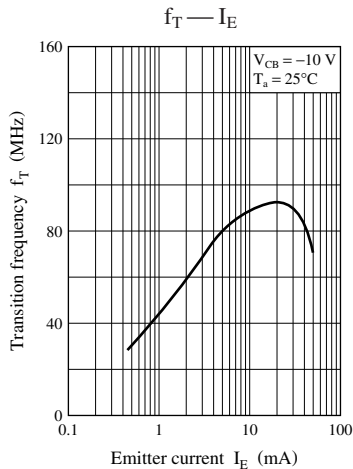
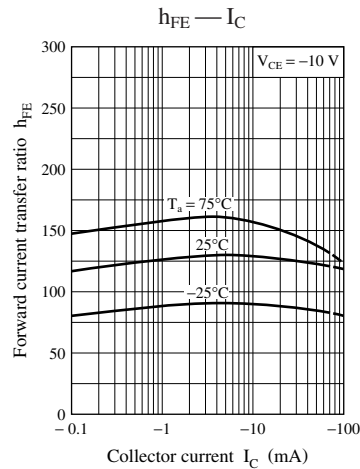
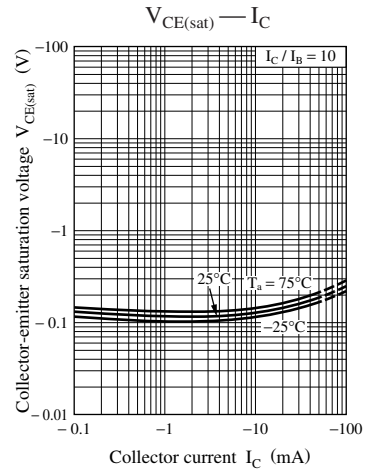
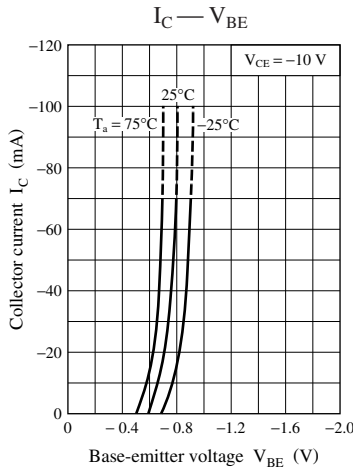
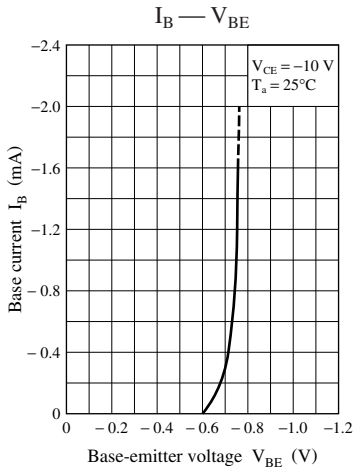
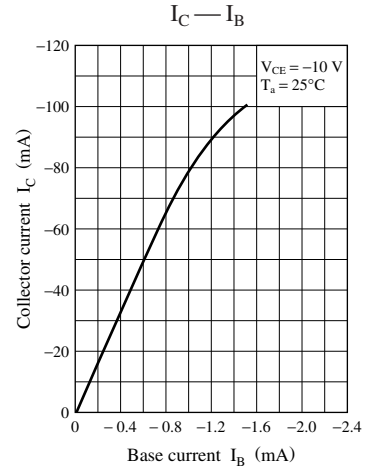
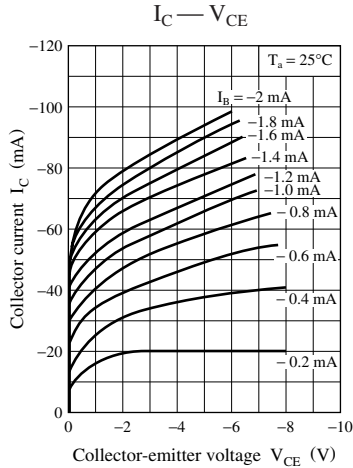
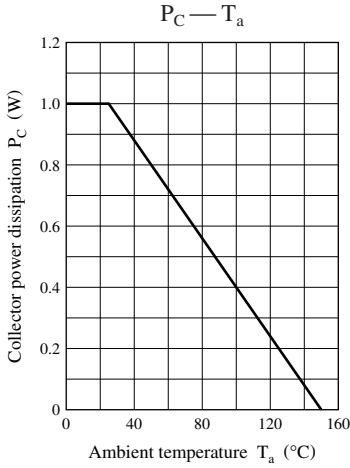
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

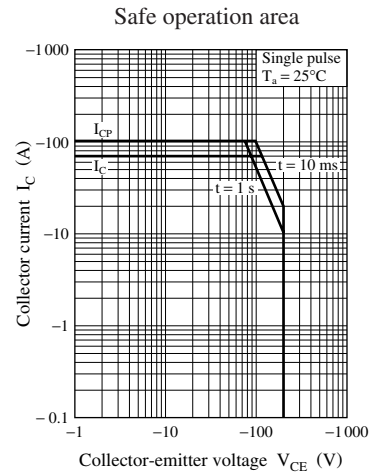
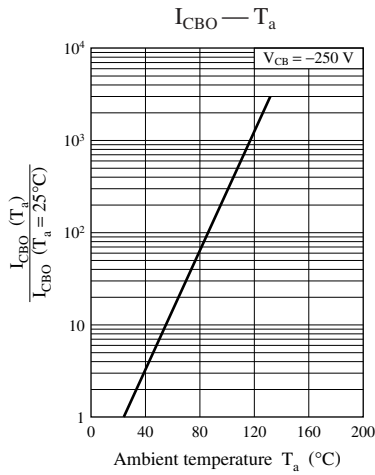
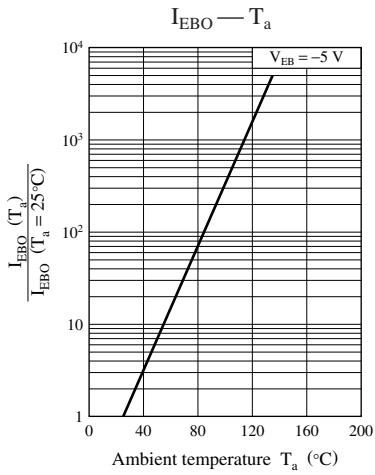
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -100 \mu\text{A}$, $I_B = 0$	-200			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -1 \mu\text{A}$, $I_C = 0$	-5			V
Forward current transfer ratio *	h_{FE}	$V_{CE} = -10 \text{ V}$, $I_C = -5 \text{ mA}$	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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