

# 2SB1321A

## Silicon PNP epitaxial planer type

For general amplification

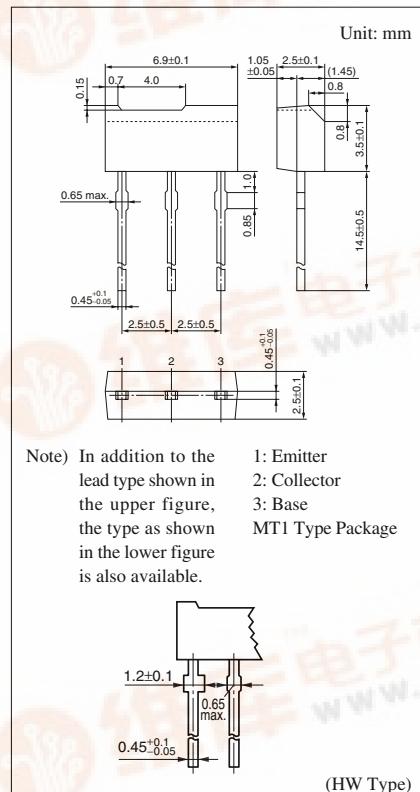
Complementary to 2SD1992A

### ■ Features

- Large collector power dissipation  $P_C$  (600 mW)
- Allowing supply with the radial taping

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	-60	V
Collector to emitter voltage	$V_{CEO}$	-50	V
Emitter to base voltage	$V_{EBO}$	-7	V
Peak collector current	$I_{CP}$	-1	A
Collector current	$I_C$	-500	mA
Collector power dissipation	$P_C$	600	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$



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

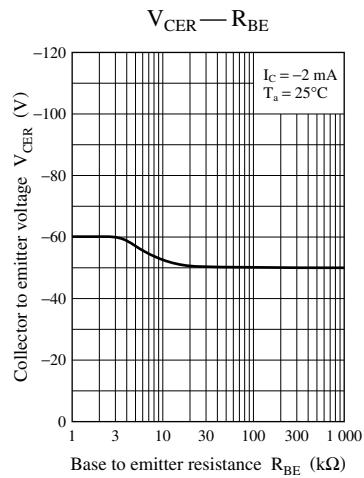
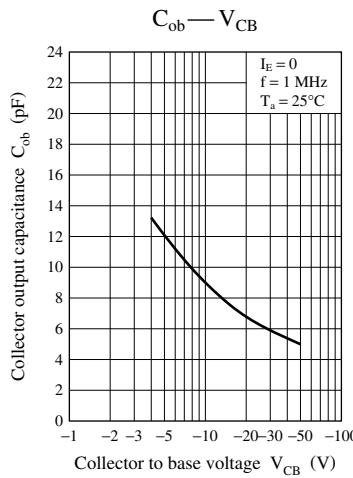
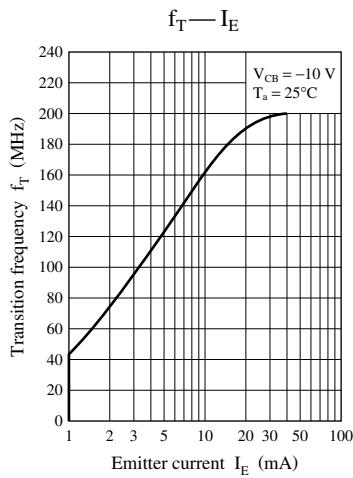
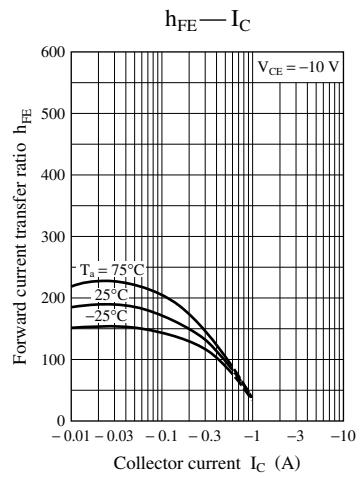
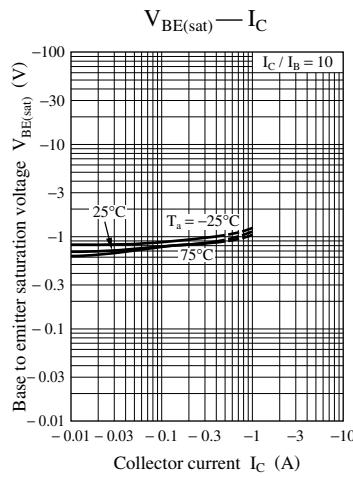
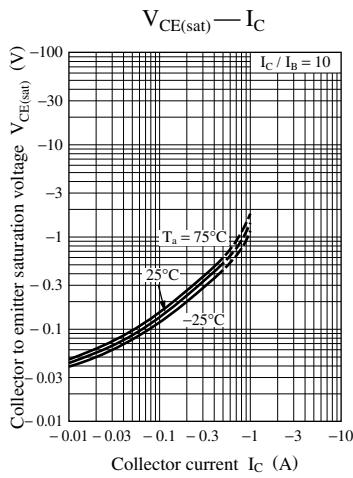
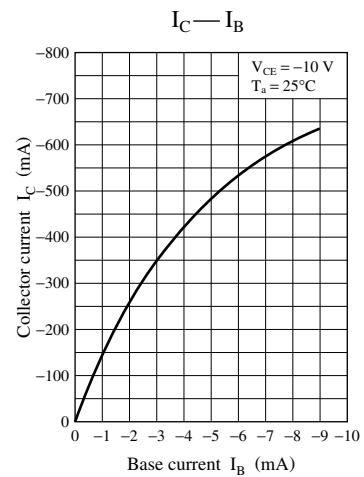
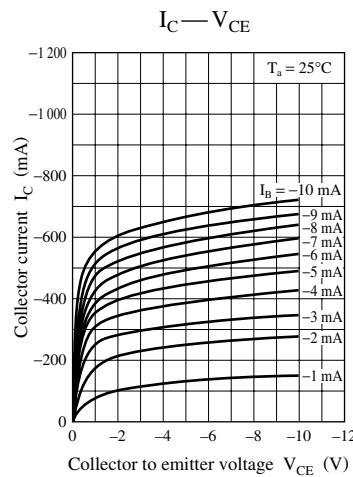
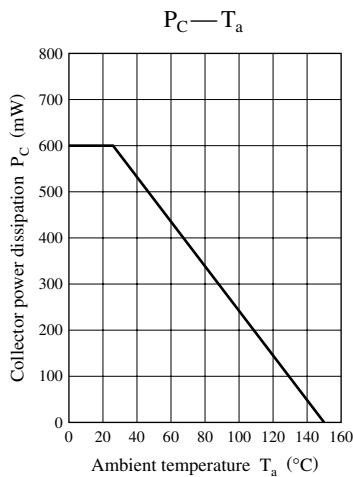
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -20\text{ V}$ , $I_E = 0$			-0.1	$\mu\text{A}$
	$I_{CEO}$	$V_{CE} = -20\text{ V}$ , $I_B = 0$			-1	$\mu\text{A}$
Collector to base voltage	$V_{CBO}$	$I_C = -10\text{ }\mu\text{A}$ , $I_E = 0$	-60			V
Collector to emitter voltage	$V_{CEO}$	$I_C = -2\text{ mA}$ , $I_B = 0$	-50			V
Emitter to base voltage	$V_{EBO}$	$I_E = -10\text{ }\mu\text{A}$ , $I_C = 0$	-7			V
Forward current transfer ratio *1	$h_{FE1}$ *2	$V_{CE} = -10\text{ V}$ , $I_C = -10\text{ mA}$	85		340	
	$h_{FE2}$	$V_{CE} = -10\text{ V}$ , $I_C = -500\text{ mA}$	40			
Collector to emitter saturation voltage	$V_{CE(\text{sat})}$	$I_C = -300\text{ mA}$ , $I_B = -30\text{ mA}$		-0.35	-0.6	V
Transition frequency	$f_T$	$V_{CB} = -10\text{ V}$ , $I_E = 10\text{ mA}$ , $f = 200\text{ MHz}$		200		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V}$ , $I_E = 0$ , $f = 1\text{ MHz}$		6	15	pF

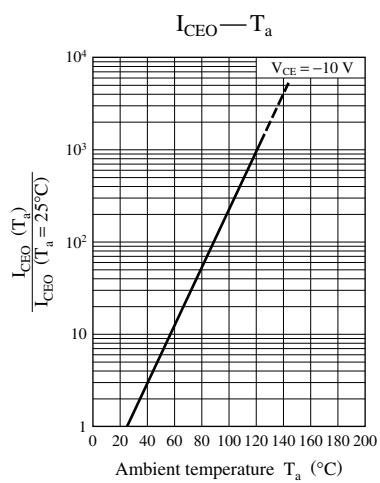
Note) \*1: Pulse measurement

\*2: Rank classification

Rank	Q	R	S	No-rank
$h_{FE1}$	85 to 170	120 to 240	170 to 340	85 to 340

Product of no-rank is not classified and have no indication for rank.





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