

# 2SB1322A

## Silicon PNP epitaxial planar type

For low-frequency power amplification

Complementary to 2SD1994A

### ■ Features

- Allowing supply with the radial taping

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{\text{CBO}}$	-60	V
Collector-emitter voltage (Base open)	$V_{\text{CEO}}$	-50	V
Emitter-base voltage (Collector open)	$V_{\text{EBO}}$	-5	V
Collector current	$I_{\text{C}}$	-1	A
Peak collector current	$I_{\text{CP}}$	-1.5	A
Collector power dissipation *	$P_{\text{C}}$	1	W
Junction temperature	$T_{\text{j}}$	150	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$

Note) \*: Print circuit board: Copper foil area of  $1\text{ cm}^2$  or more, and the board thickness of 1.7 mm for the collector portion

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	$V_{\text{CBO}}$	$I_{\text{C}} = -10\ \mu\text{A}$ , $I_{\text{E}} = 0$	-60			V
Collector-emitter voltage (Base open)	$V_{\text{CEO}}$	$I_{\text{C}} = -2\ \text{mA}$ , $I_{\text{B}} = 0$	-50			V
Emitter-base voltage (Collector open)	$V_{\text{EBO}}$	$I_{\text{E}} = -10\ \mu\text{A}$ , $I_{\text{C}} = 0$	-5			V
Collector-base cutoff current (Emitter open)	$I_{\text{CBO}}$	$V_{\text{CB}} = -20\ \text{V}$ , $I_{\text{E}} = 0$			-0.1	$\mu\text{A}$
Forward current transfer ratio	$h_{\text{FE1}}$ *2	$V_{\text{CE}} = -10\ \text{V}$ , $I_{\text{C}} = -500\ \text{mA}$	85		340	—
	$h_{\text{FE2}}$	$V_{\text{CE}} = -5\ \text{V}$ , $I_{\text{C}} = -1\ \text{A}$	50			—
Collector-emitter saturation voltage *1	$V_{\text{CE(sat)}}$	$I_{\text{C}} = -500\ \text{mA}$ , $I_{\text{B}} = -50\ \text{mA}$			-0.4	V
Base-emitter saturation voltage *1	$V_{\text{BE(sat)}}$	$I_{\text{C}} = -500\ \text{mA}$ , $I_{\text{B}} = -50\ \text{mA}$			-1.2	V
Transition frequency	$f_{\text{T}}$	$V_{\text{CB}} = -10\ \text{V}$ , $I_{\text{E}} = 50\ \text{mA}$ , $f = 200\ \text{MHz}$		200		MHz
Collector output capacitance (Common base, input open circuited)	$C_{\text{ob}}$	$V_{\text{CB}} = -10\ \text{V}$ , $I_{\text{E}} = 0$ , $f = 1\ \text{MHz}$		20	30	pF

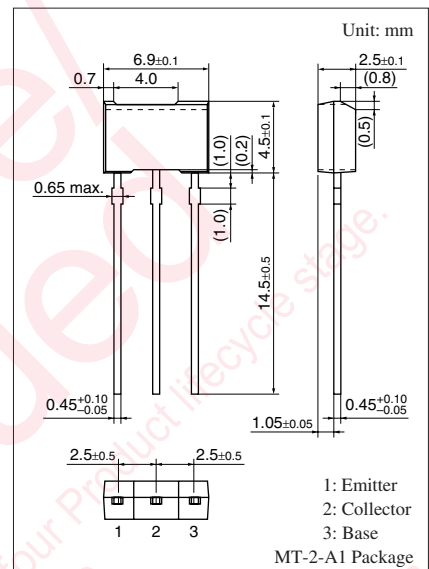
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

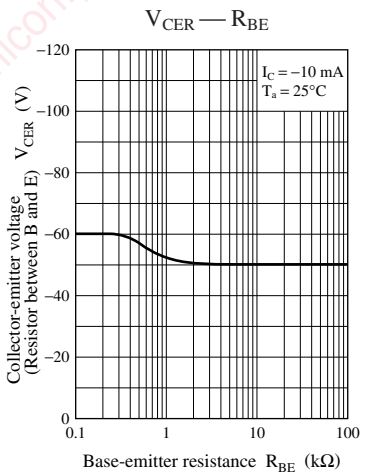
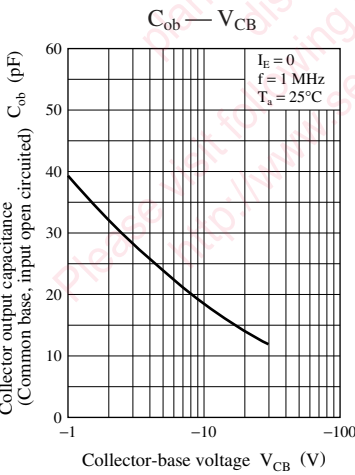
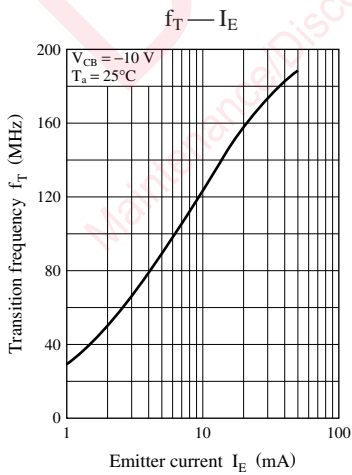
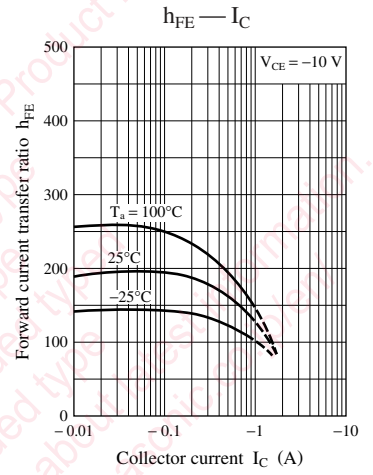
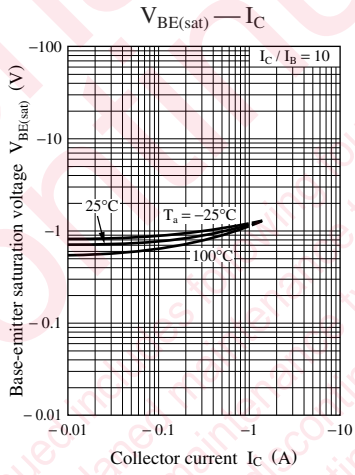
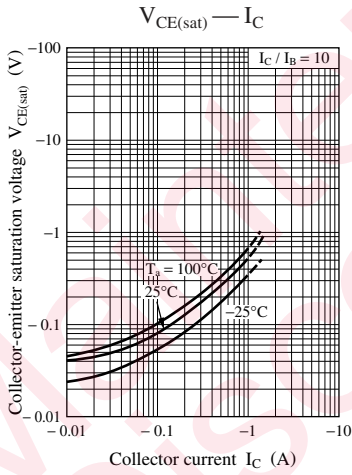
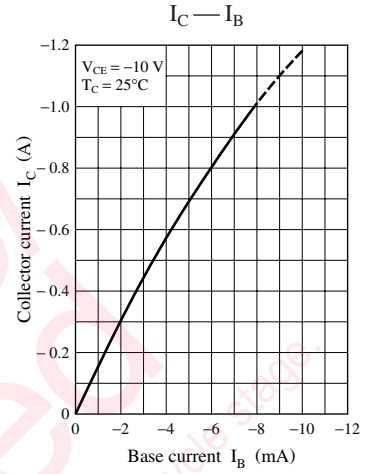
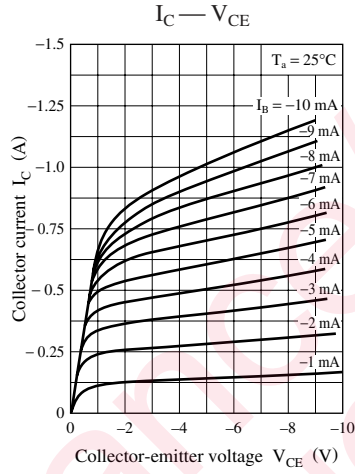
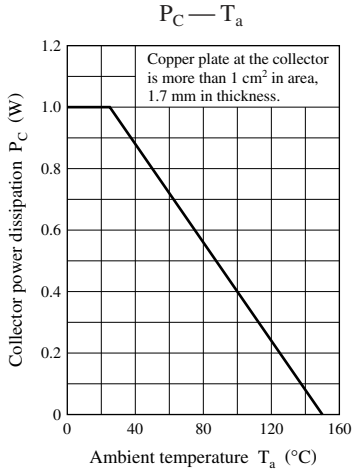
2. \*1: Pulse measurement

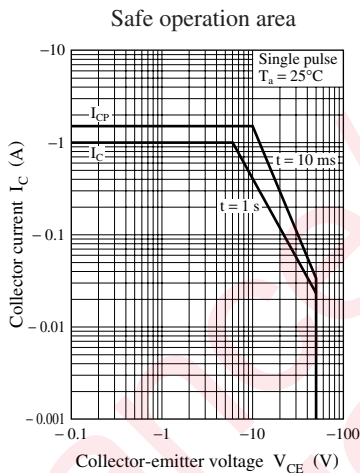
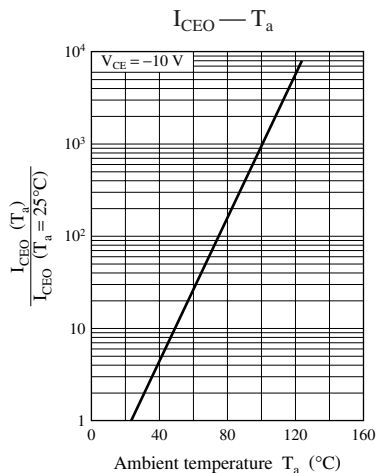
\*2: Rank classification

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

Product of no-rank classification is not marked.







Maintenance/Discontinued includes following four Product lifecycle stage.  
planned maintenance type  
maintenance type  
planned discontinued type  
discontinued type  
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