

# 2SB1030A

## Silicon PNP epitaxial planar type

For low-frequency amplification

Complementary to 2SD1423A

### ■ Features

- Optimum for high-density mounting
- 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)	$V_{\text{EBO}}$	-7	V
Collector current	$I_{\text{C}}$	-0.5	A
Peak collector current	$I_{\text{CP}}$	-1	A
Collector power dissipation	$P_{\text{C}}$	300	mW
Junction temperature	$T_{\text{j}}$	150	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$

### ■ Package

- Code  
NS-B1
- Pin Name
  1. Emitter
  2. Collector
  3. Base

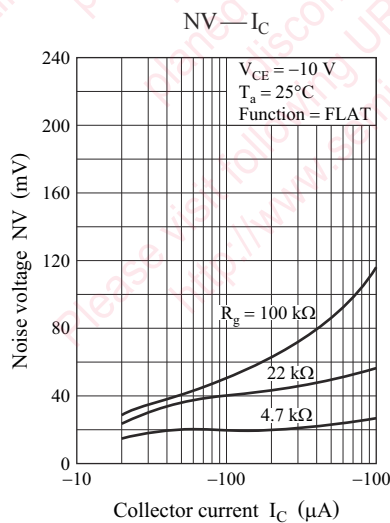
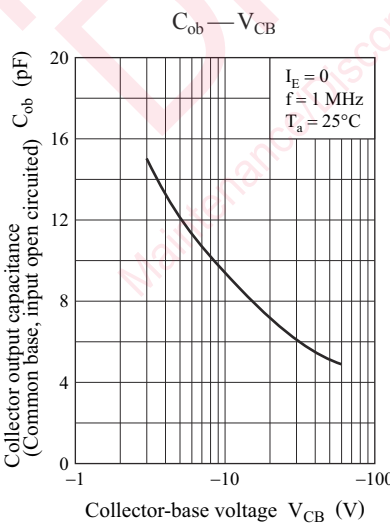
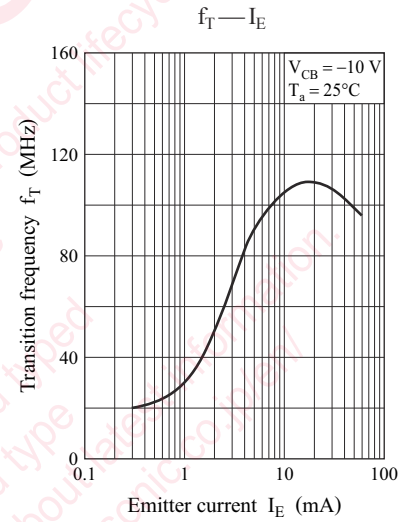
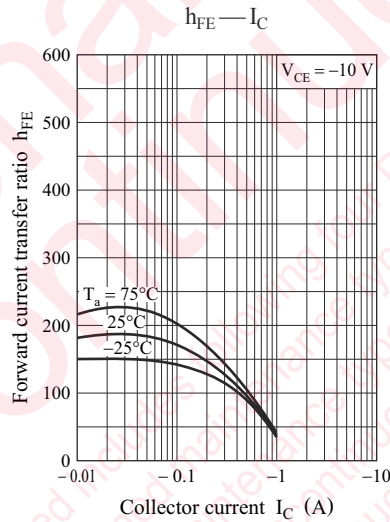
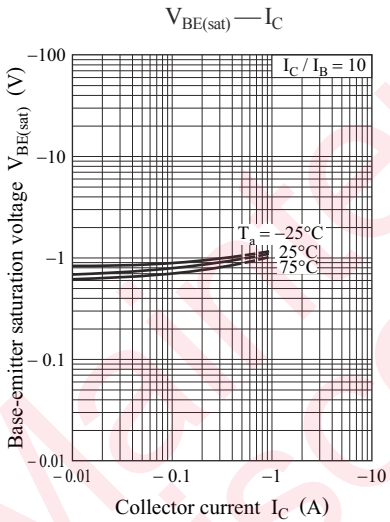
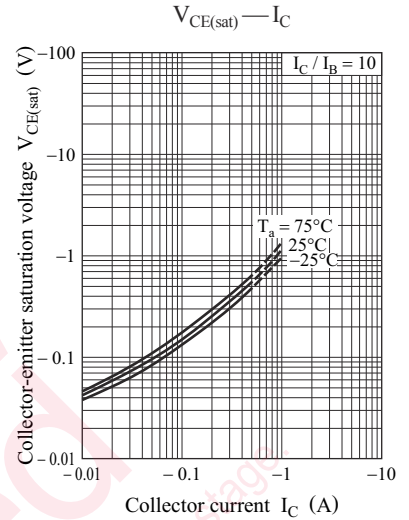
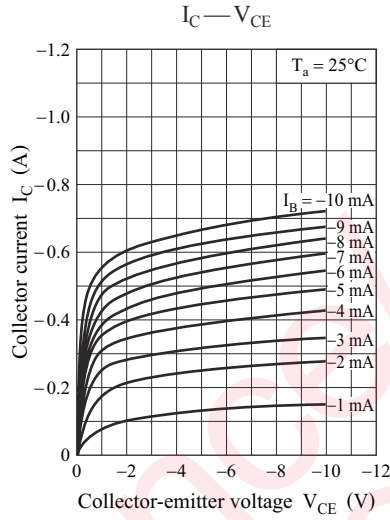
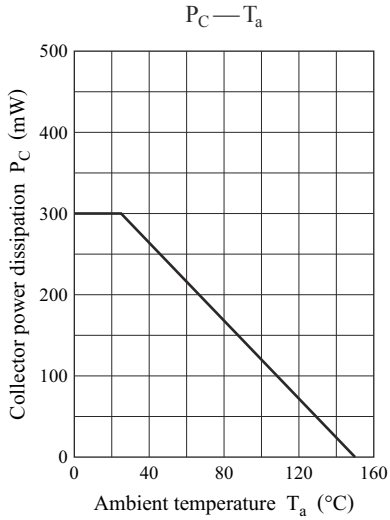
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

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)	$V_{\text{EBO}}$	$I_{\text{E}} = -10 \mu\text{A}, I_{\text{C}} = 0$	-7			V
Collector-base cutoff current (Emitter open)	$I_{\text{CBO}}$	$V_{\text{CB}} = -20 \text{ V}, I_{\text{E}} = 0$			-0.1	$\mu\text{A}$
Collector-Emitter cutoff current (Base open)	$I_{\text{CEO}}$	$V_{\text{CE}} = -20 \text{ V}, I_{\text{B}} = 0$			-1	$\mu\text{A}$
Forward current transfer ratio	$h_{\text{FE1}}^*$	$V_{\text{CE}} = -10 \text{ V}, I_{\text{C}} = -150 \text{ mA}$	85		340	—
	$h_{\text{FE2}}$	$V_{\text{CE}} = -10 \text{ V}, I_{\text{C}} = -500 \text{ A}$	40			—
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = -300 \text{ mA}, I_{\text{B}} = -30 \text{ mA}$		-0.35	-0.60	V
Transition frequency	$f_{\text{T}}$	$V_{\text{CB}} = -10 \text{ V}, I_{\text{E}} = 50 \text{ mA}, f = 200 \text{ MHz}$		120		MHz
Collector output capacitance (Common base, input open circuited)	$C_{\text{ob}}$	$V_{\text{CB}} = -10 \text{ V}, I_{\text{E}} = 0, f = 1 \text{ MHz}$		3.5	15.0	pF

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

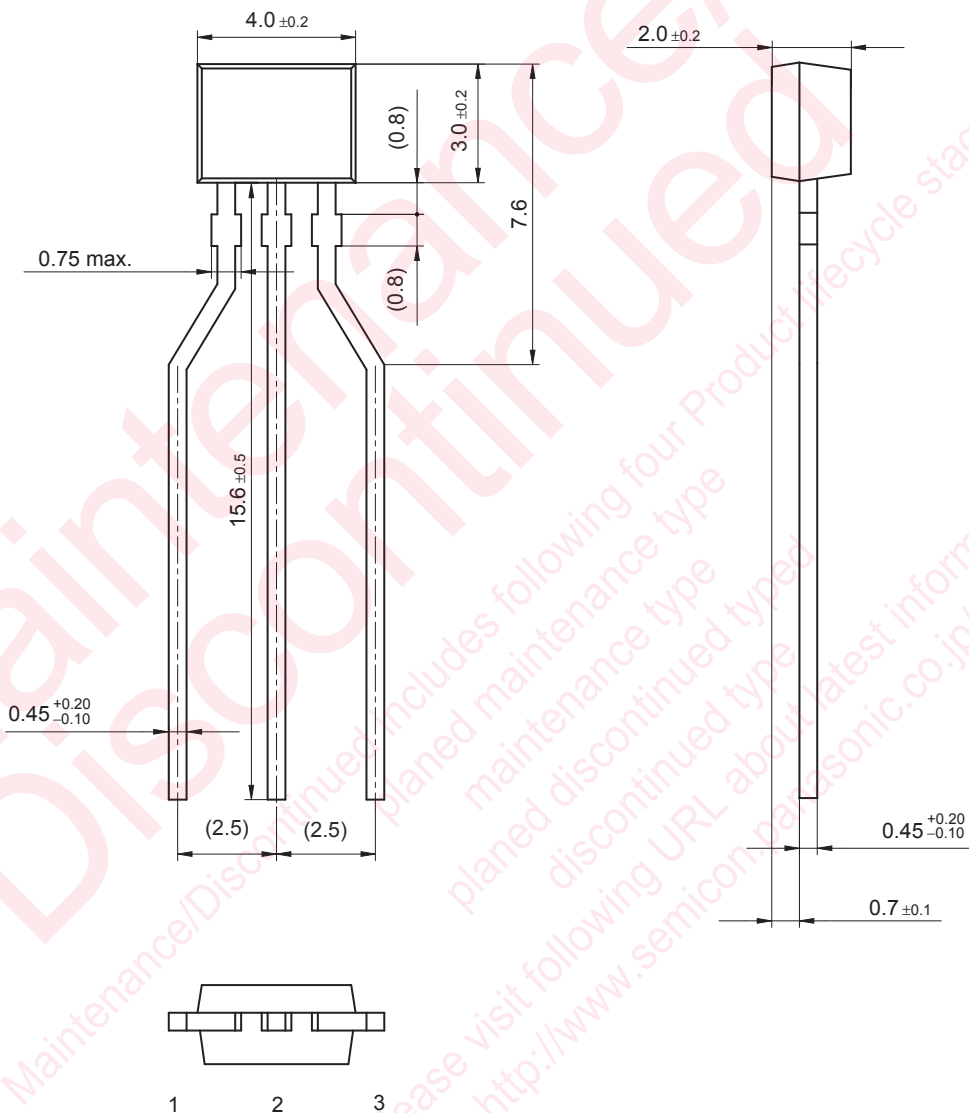
2. \*: Rank classification

Rank	Q	R	S
$h_{\text{FE1}}$	85 to 170	120 to 240	170 to 340



NS-B1

Unit: mm



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