## 2SB1623A

## Silicon PNP epitaxial planar type

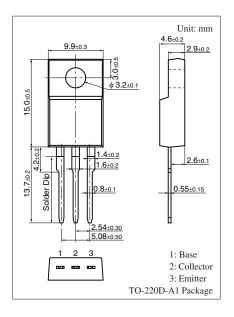
### For power amplification

#### ■ Features

- High forward current transfer ratio hFE
- Satisfactory linearity of forward current transfer ratio h<sub>FE</sub>
- Dielectric breakdown voltage of the package: > 5 kV

## ■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	-80	V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	-80	V
Emitter-base voltage (Collector open)	$V_{EBO}$	-5	V
Collector current	$I_C$	-4	A
Peak collector current	$I_{CP}$	-8	A
Collector power $T_C = 25^{\circ}C$	P <sub>C</sub>	40	W
dissipation		2.0	
Junction temperature	$T_{j}$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C



## ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

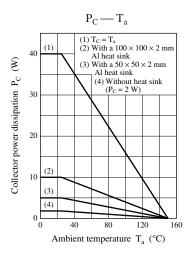
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_C = -30 \text{ mA}, I_B = 0$	-80			V
Base-emitter voltage	V <sub>BE</sub>	$V_{CE} = -3 \text{ V}, I_{C} = -3 \text{ A}$			-2.5	V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = -80 \text{ V}, I_E = 0$			-200	μΑ
Collector-emitter cutoff current (Base open)	$I_{CEO}$	$V_{CE} = -40 \text{ V}, I_{B} = 0$			-500	μΑ
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = -5 \text{ V}, I_C = 0$			-2	mA
Forward current transfer ratio	h <sub>FE1</sub>	$V_{CE} = -3 \text{ V}, I_{C} = -0.5 \text{ A}$	1 000			_
	h <sub>FE2</sub> *	$V_{CE} = -3 \text{ V}, I_{C} = -3 \text{ A}$	1 000		10 000	
Collector-emitter saturation voltage	V <sub>CE(sat)1</sub>	$I_C = -3 \text{ A}, I_B = -12 \text{ mA}$			-2	V
	V <sub>CE(sat)2</sub>	$I_C = -5 \text{ A}, I_B = -20 \text{ mA}$			-4	
Transition frequency	$f_T$	$V_{CE} = -10 \text{ V}, I_{C} = -0.5 \text{ A}, f = 1 \text{ MHz}$		20		MHz
Turn-on time	t <sub>on</sub>	$I_C = -3 \text{ A}, I_{B1} = -12 \text{ mA}, I_{B2} = 12 \text{ mA}$		0.3		μs
Storage time	t <sub>stg</sub>	$V_{\rm CC} = -50 \text{ V}$		2.0		μs
Fall time	t <sub>f</sub>			0.5		μs

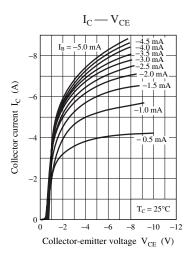
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

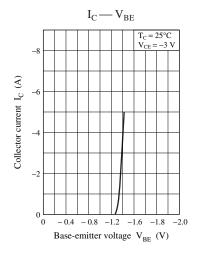
#### 2. \*: Rank classification

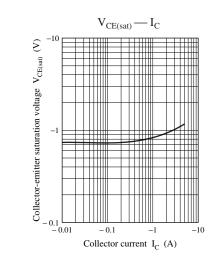
Rank	R	Q	Р
h <sub>FE2</sub>	1000 to 2500	2000 to 5000	4000 to 10000

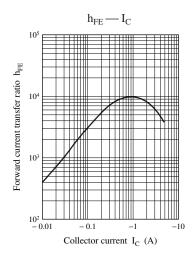
2SB1623A Panasonic

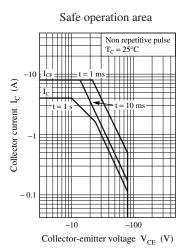












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