

# 2SB1631

## Silicon PNP epitaxial planar type

For power amplification

### ■ Features

- High forward current transfer ratio  $h_{FE}$  which has satisfactory linearity
- Low collector-emitter saturation voltage  $V_{CE(sat)}$
- Allowing automatic insertion with radial tapering

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	-60	V
Collector-emitter voltage (Base open)	$V_{CEO}$	-60	V
Emitter-base voltage (Collector open)	$V_{EBO}$	-6	V
Collector current	$I_C$	-3	A
Peak collector current	$I_{CP}$	-6	A
Base current	$I_B$	-1	A
Collector power dissipation	$P_C$	25	W
		$T_a = 25^\circ\text{C}$	2
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$

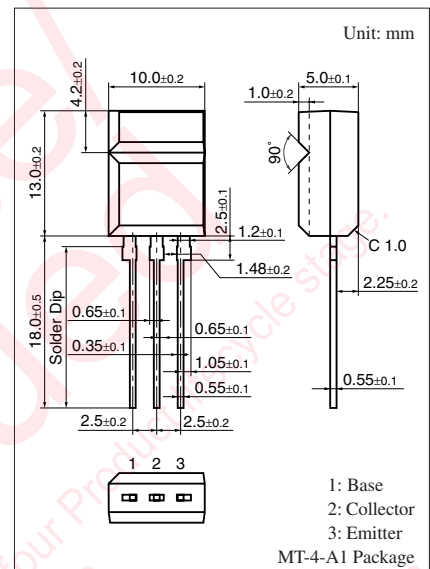
### ■ Electrical Characteristics $T_C = 25^\circ\text{C} \pm 3^\circ\text{C}$

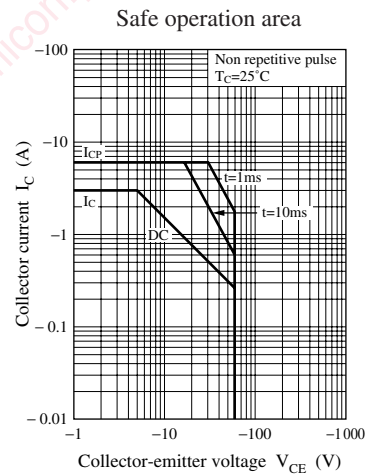
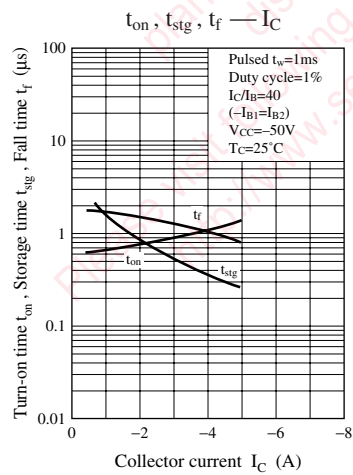
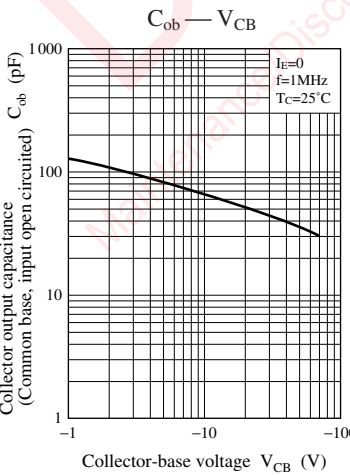
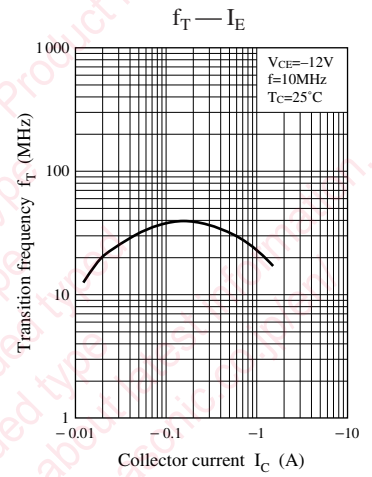
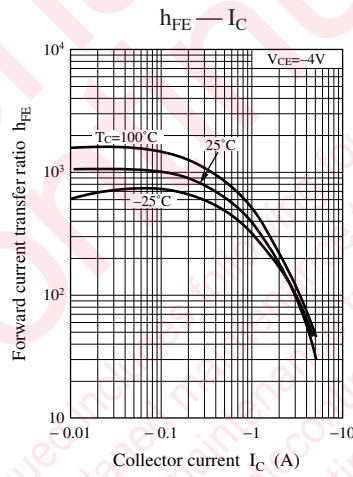
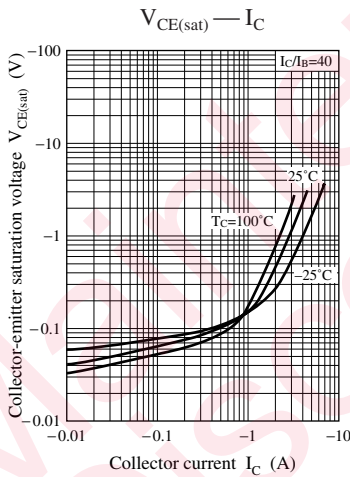
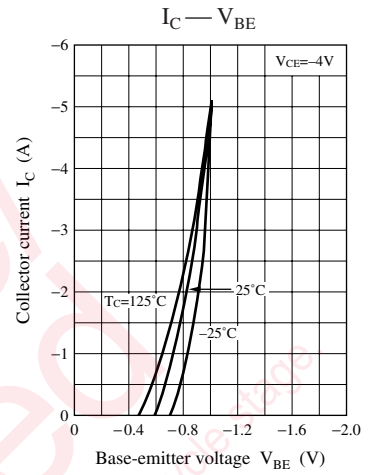
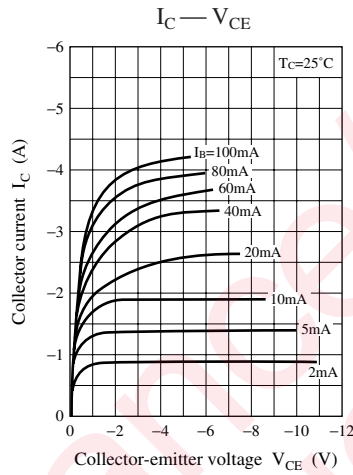
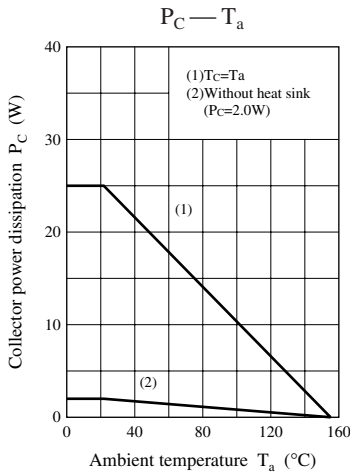
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	$V_{CEO}$	$I_C = -25 \text{ mA}, I_B = 0$	-60			V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = -60 \text{ V}, I_E = 0$			-100	$\mu\text{A}$
Collector-emitter cutoff current (Base open)	$I_{CEO}$	$V_{CE} = -40 \text{ V}, I_B = 0$			-100	$\mu\text{A}$
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = -6 \text{ V}, I_C = 0$			-100	$\mu\text{A}$
Forward current transfer ratio	$h_{FE}^*$	$V_{CE} = -4 \text{ V}, I_C = -0.5 \text{ A}$	300		700	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2 \text{ A}, I_B = -0.05 \text{ A}$			-1	V
Transition frequency	$f_T$	$V_{CE} = -12 \text{ V}, I_C = -0.2 \text{ A}, f = 10 \text{ MHz}$		30		MHz

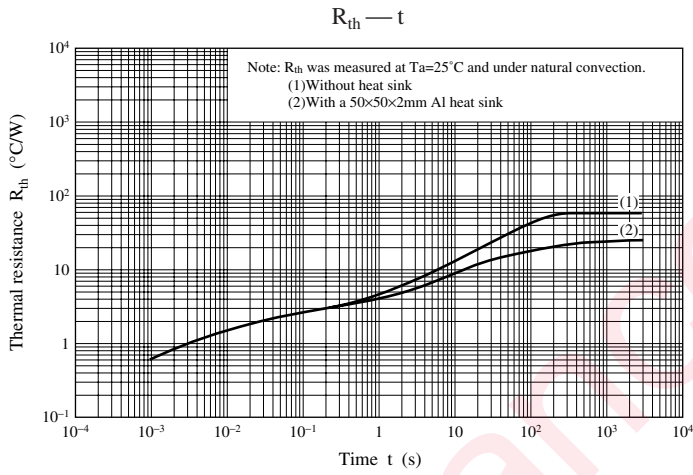
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. \*: Rank classification

Rank	Q	P
$h_{FE}$	300 to 500	400 to 700







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