

# 2SB0976 (2SB976)

## Silicon PNP epitaxial planar type

For low-frequency output amplification

For DC-DC converter

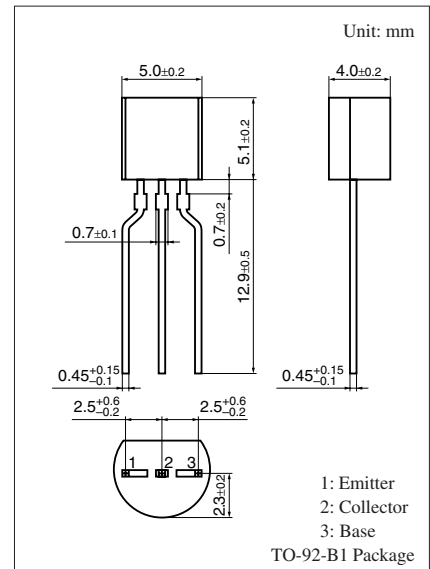
For stroboscope

### ■ Features

- Low collector-emitter saturation voltage  $V_{CE(sat)}$
- Large collector current  $I_C$

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	-27	V
Collector-emitter voltage (Base open)	$V_{CEO}$	-18	V
Emitter-base voltage (Collector open)	$V_{EBO}$	-7	V
Collector current	$I_C$	-5	A
Peak collector current	$I_{CP}$	-8	A
Collector power dissipation	$P_C$	0.75	W
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-emitter voltage (Base open)	$V_{CEO}$	$I_C = -1 \text{ mA}, I_B = 0$	-18			V
Emitter-base voltage (Collector open)	$V_{EBO}$	$I_E = -10 \mu\text{A}, I_C = 0$	-7			V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = -10 \text{ V}, I_E = 0$			-100	nA
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = -5 \text{ V}, I_C = 0$			-1	$\mu\text{A}$
Forward current transfer ratio <sup>*1, 2</sup>	$h_{FE}$	$V_{CE} = -2 \text{ V}, I_C = -2 \text{ A}$	125		625	—
Collector-emitter saturation voltage <sup>*1</sup>	$V_{CE(sat)}$	$I_C = -3 \text{ A}, I_B = -0.1 \text{ A}$		-0.4	-1.0	V
Transition frequency	$f_T$	$V_{CB} = -6 \text{ V}, I_E = 50 \text{ mA}, f = 200 \text{ MHz}$		120		MHz
Collector output capacitance (Common base, input open circuited)	$C_{ob}$	$V_{CB} = -20 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		60		pF

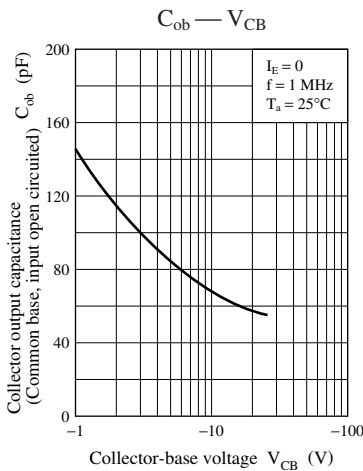
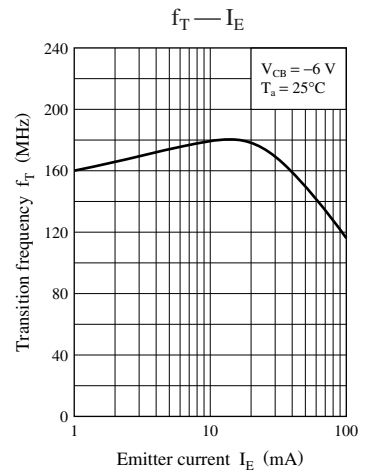
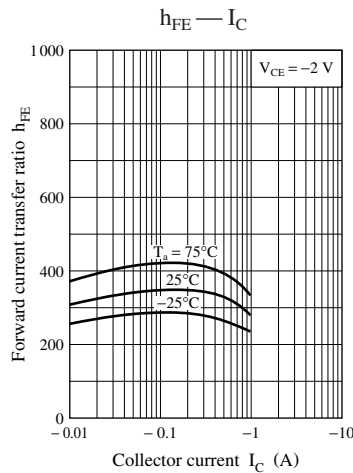
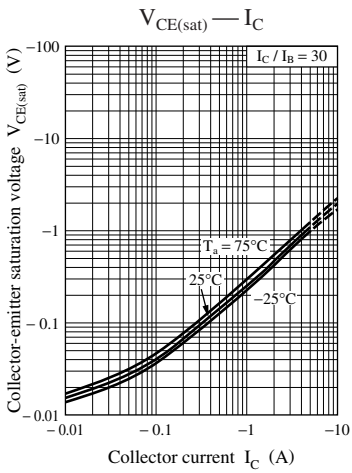
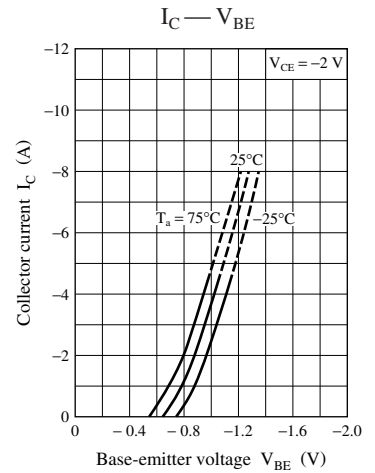
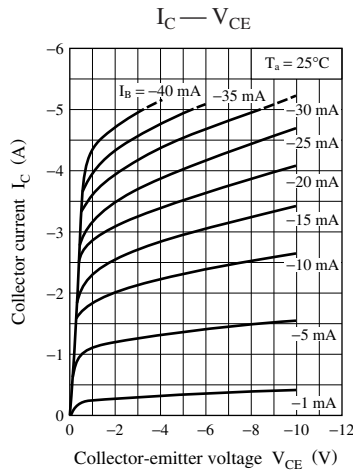
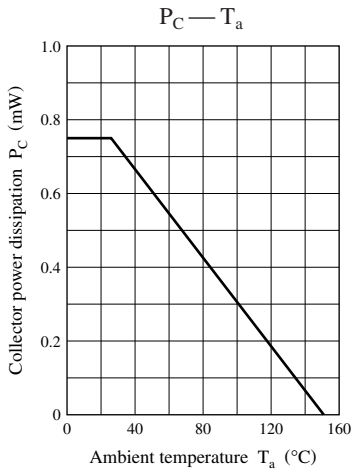
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. \*1: Pulse measurement

\*2: Rank classification

Rank	Q	R
$h_{FE}$	125 to 205	180 to 625

Note) The part number in the parenthesis shows conventional part number.



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