# 2SB0976 (2SB976)

## Silicon PNP epitaxial planar type

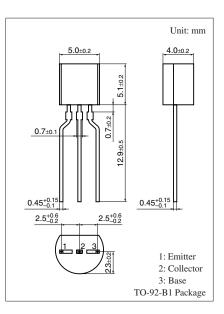
For low-frequency output amplification For DC-DC converter For stroboscope

#### Features

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

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	-27	V	
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	-18	V	
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	-7	V	
Collector current	I <sub>C</sub>	-5	А	
Peak collector current	I <sub>CP</sub>	-8	А	
Collector power dissipation	P <sub>C</sub>	0.75	W	
Junction temperature	Tj	150	°C	
Storage temperature	T <sub>stg</sub>	-55 to +150	°C	



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

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{\rm C} = -1  {\rm mA},  I_{\rm B} = 0$	-18			V
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	$I_E = -10 \ \mu A, \ I_C = 0$	-7			V
Collector-base cutoff current (Emitter open)	I <sub>CBO</sub>	$V_{CB} = -10 \text{ V}, I_E = 0$			-100	nA
Emitter-base cutoff current (Collector open)	I <sub>EBO</sub>	$V_{EB} = -5 V, I_C = 0$			-1	μΑ
Forward current transfer ratio *1, 2	h <sub>FE</sub>	$V_{CE} = -2 V, I_C = -2 A$	125		625	_
Collector-emitter saturation voltage *1	V <sub>CE(sat)</sub>	$I_{\rm C} = -3$ A, $I_{\rm B} = -0.1$ A		- 0.4	-1.0	V
Transition frequency	f <sub>T</sub>	$V_{CB} = -6 \text{ V}, I_E = 50 \text{ mA}, f = 200 \text{ MHz}$		120		MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB} = -20 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		60		pF
(Common base, input open circuited)						

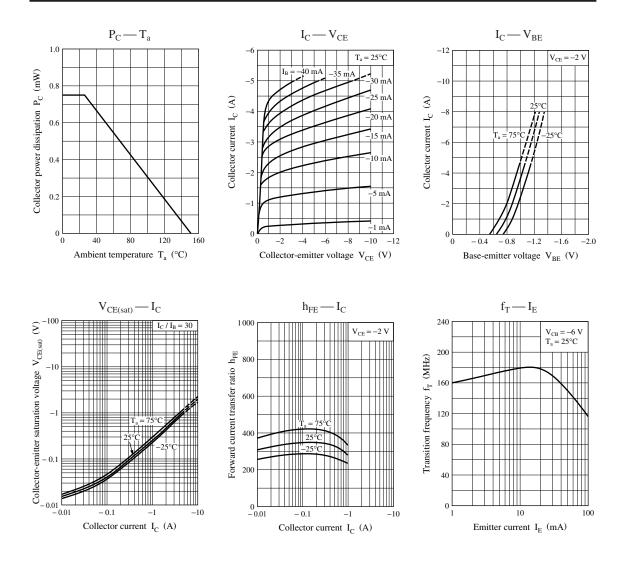
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

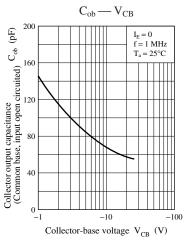
2. \*1: Pulse measurement

\*2: Rank classification

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

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





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