Transistors Panasonic

# **2SB0710** (2SB710), **2SB0710A** (2SB710A)

# Silicon PNP epitaxial planar type

For general amplification

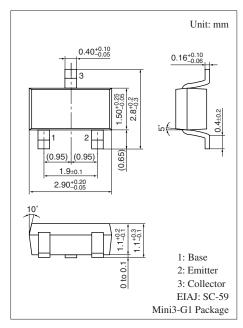
Complementary to 2SD0602 (2SD602), 2SD0602A (2SD602A)

#### ■ Features

- ullet Large collector current  $I_C$
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage	2SB0710	V <sub>CBO</sub>	-30	V
(Emitter open)	2SB0710A		-60	
Collector-emitter voltage	2SB0710	V <sub>CEO</sub>	-25	V
(Base open)	2SB0710A		-50	
Emitter-base voltage (Col	$V_{EBO}$	-5	V	
Collector current	$I_C$	- 0.5	A	
Peak collector current	$I_{CP}$	-1	A	
Collector power dissipation		P <sub>C</sub>	200	mW
Junction temperature	T <sub>j</sub>	150	°C	
Storage temperature	$T_{stg}$	-55 to +150	°C	



### Marking Symbol:

• 2SB0710: C • 2SB0710A: D

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

Parameter		Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage	2SB0710	$V_{CBO}$	$I_C = -10 \ \mu A, \ I_E = 0$	-30			V
(Emitter open)	2SB0710A			-60			
Collector-emitter voltage	2SB0710	V <sub>CEO</sub>	$I_C = -10 \text{ mA}, I_B = 0$	-25			V
(Base open)	2SB0710A			-50			
Emitter-base voltage (Collector open)		$V_{EBO}$	$I_E = -10 \ \mu A, I_C = 0$	-5			V
Collector-base cutoff current (Emitter open)		$I_{CBO}$	$V_{CB} = -20 \text{ V}, I_E = 0$			- 0.1	μΑ
Forward current transfer ratio *1		h <sub>FE1</sub> *2	$V_{CE} = -10 \text{ V}, I_{C} = -150 \text{ mA}$	85		340	_
		h <sub>FE2</sub>	$V_{CE} = -10 \text{ V}, I_{C} = -500 \text{ mA}$	40			_
Collector-emitter saturation	voltage *1	V <sub>CE(sat)</sub>	$I_C = -300 \text{ mA}, I_B = -30 \text{ mA}$		- 0.35	- 0.60	V
Base-emitter saturation volta	age *1	V <sub>BE(sat)</sub>	$I_C = -300 \text{ mA}, I_B = -30 \text{ mA}$		-1.1	-1.5	V
Transition frequency		$f_T$	$V_{CB} = -10 \text{ V}, I_E = 50 \text{ mA}, f = 200 \text{ MHz}$		200		MHz
Collector output capacitance (Common base, input open circuited)		C <sub>ob</sub>	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		6	15	pF

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

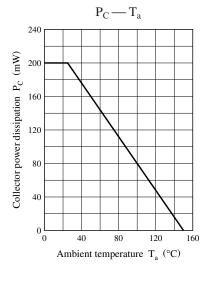
#### 2. \*1: Pulse measurement

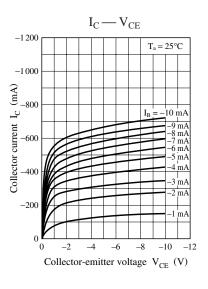
### \*2: Rank classification

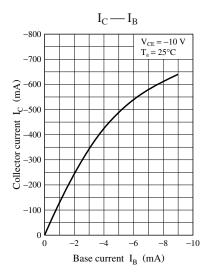
Ra	ank	Q	R	S	No-rank
h <sub>l</sub>	FE1	85 to 170	120 to 240	170 to 340	85 to 340
Marking	2SB0710	CQ	CR	CS	С
symbol	2SB0710A	DQ	DR	DS	D

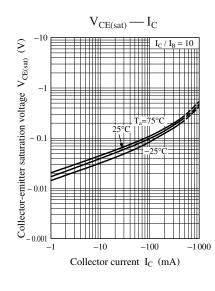
Product of no-rank is not classified and have no marking symbol for rank.

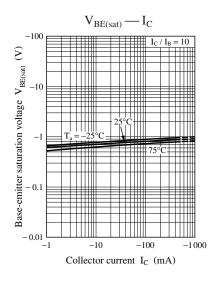
Note) The part numbers in the parenthesis show conventional part number.

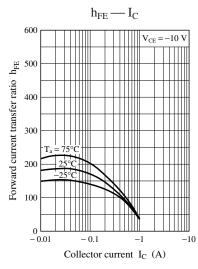


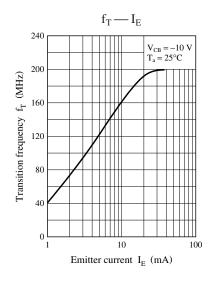


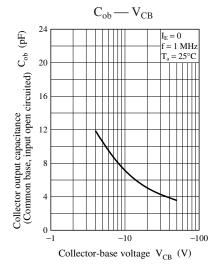


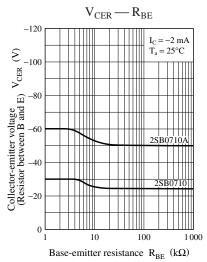












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