

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

Silicon PNP epitaxial planar type

For general amplification

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

■ Features

- 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 $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	2SB0710 V_{CBO}	-30	V
	2SB0710A	-60	
Collector-emitter voltage (Base open)	2SB0710 V_{CEO}	-25	V
	2SB0710A	-50	
Emitter-base voltage (Collector open)	V_{EBO}	-5	V
Collector current	I_C	-0.5	A
Peak collector current	I_{CP}	-1	A
Collector power dissipation	P_C	200	mW
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-base voltage (Emitter open)	2SB0710 V_{CBO}	$I_C = -10\ \mu\text{A}$, $I_E = 0$	-30			V
	2SB0710A		-60			
Collector-emitter voltage (Base open)	2SB0710 V_{CEO}	$I_C = -10\ \text{mA}$, $I_B = 0$	-25			V
	2SB0710A		-50			
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10\ \mu\text{A}$, $I_C = 0$	-5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -20\ \text{V}$, $I_E = 0$			-0.1	μA
Forward current transfer ratio *1	h_{FE1} *2	$V_{CE} = -10\ \text{V}$, $I_C = -150\ \text{mA}$	85		340	—
	h_{FE2}	$V_{CE} = -10\ \text{V}$, $I_C = -500\ \text{mA}$	40			
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = -300\ \text{mA}$, $I_B = -30\ \text{mA}$		-0.35	-0.60	V
Base-emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = -300\ \text{mA}$, $I_B = -30\ \text{mA}$		-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_{ob}	$V_{CB} = -10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$		6	15	pF

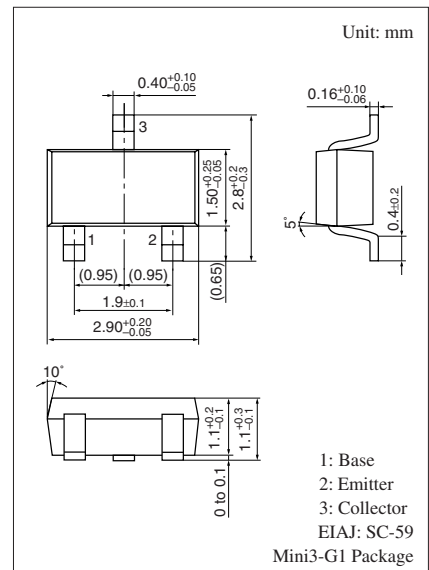
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

*2: Rank classification

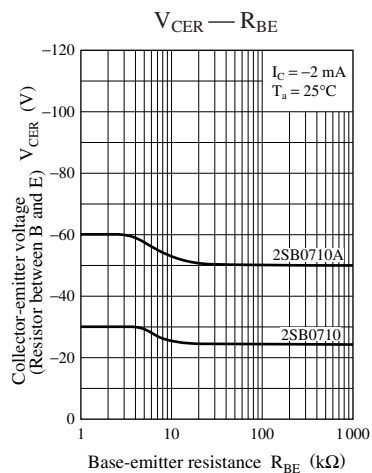
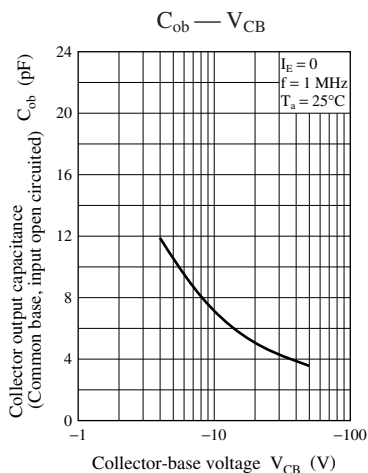
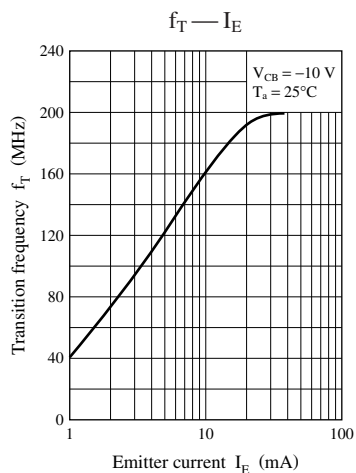
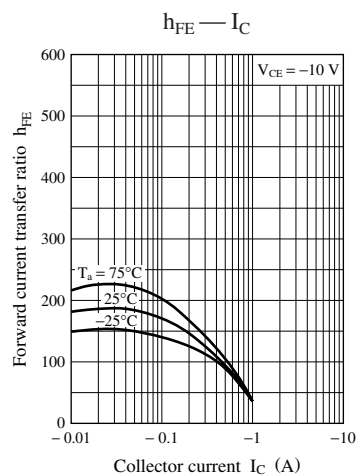
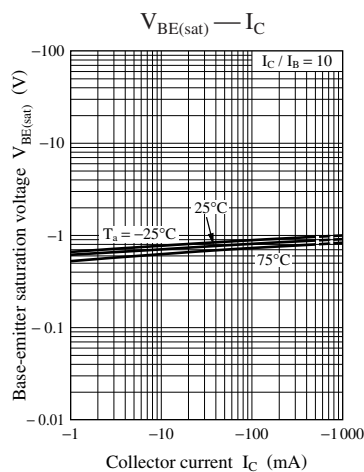
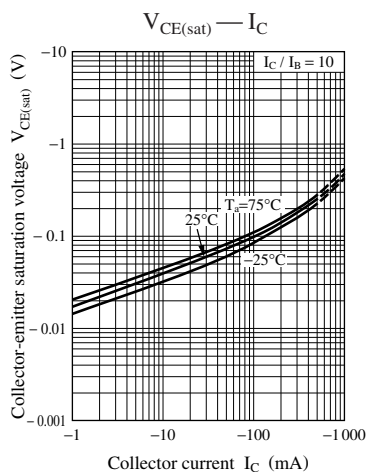
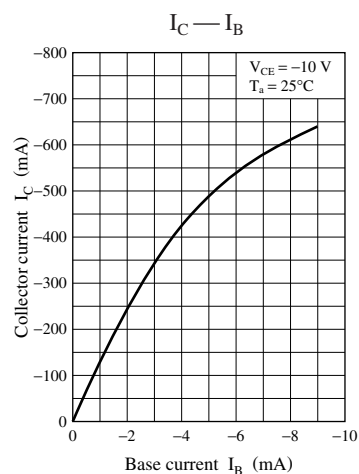
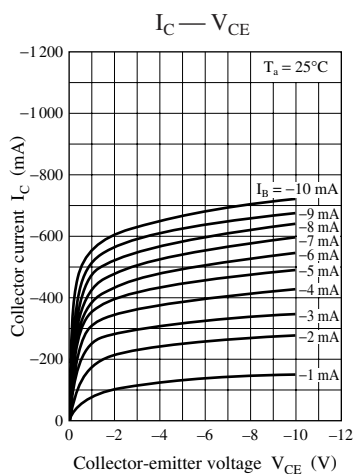
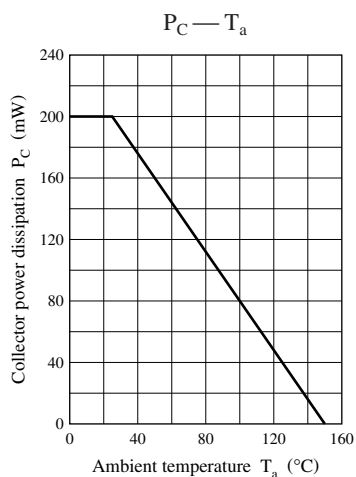
Rank	Q	R	S	No-rank
h_{FE1}	85 to 170	120 to 240	170 to 340	85 to 340
Marking symbol	2SB0710	CQ	CR	CS
	2SB0710A	DQ	DR	DS

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



Marking Symbol:

- 2SB0710: C
- 2SB0710A: D



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