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2SB0709A (2SB709A)

Silicon PNP epitaxial planar type

For general amplification

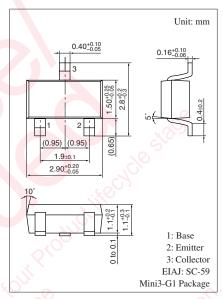
Complementary to 2SD0601A (2SD601A)

■ Features

- ullet High forward current transfer ratio h_{FE}
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V_{CBO}	-45	V	
Collector-emitter voltage (Base open)	V _{CEO}	-45	V	
Emitter-base voltage (Collector open)	V_{EBO}	-7	V	
Collector current	I_{C}	-100	mA	
Peak collector current	I_{CP}	-200	mA	
Collector power dissipation	P _C	200	mW	
Junction temperature	Tj	150	°C	
Storage temperature	T_{stg}	-55 to +150	°C	



Marking Symbol: B

■ Electrical Characteristics $T_a = 25$ °C ± 3 °C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_{\rm C} = -10 \mu\text{A}, I_{\rm E} = 0$	-45	250		V
Collector-emitter voltage (Base open)	V _{CEO}	$I_{\rm C} = -2 \text{ mA}, I_{\rm B} = 0$	-45			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10 \mu A, I_C = 0$	-7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -20 \text{ V}, I_E = 0$			- 0.1	μΑ
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -10 \text{ V}, I_B = 0$			-100	μΑ
Forward current transfer ratio *	h _{FE}	$V_{CE} = -10 \text{ V}, I_C = -2 \text{ mA}$	160		460	_
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = -100 \text{ mA}, I_B = -10 \text{ mA}$		- 0.3	- 0.5	V
Transition frequency	f_T	$V_{CB} = -10 \text{ V}, I_E = 1 \text{ mA}, f = 200 \text{ MHz}$		80		MHz
Collector output capacitance (Common base, input open circuited)	C _{ob}	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		2.7		pF

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

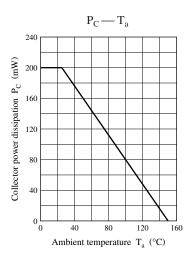
2. *: Rank classification

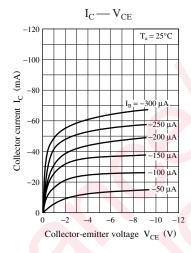
Rank	Q	R	S	No-rank
h_{FE}	160 to 260	210 to 340	290 to 460	160 to 460
Marking symbol	BQ	BR	BS	В

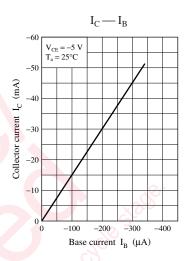
Product of no-rank is not classified and have no marking symbol for rank.

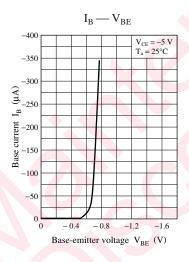
Note) The part number in the parenthesis shows conventional part number.

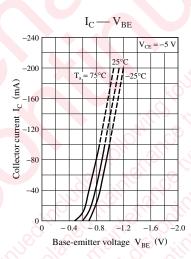
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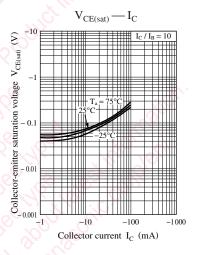


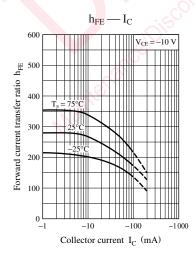


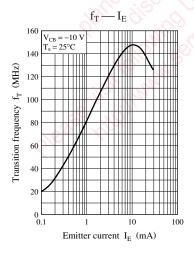


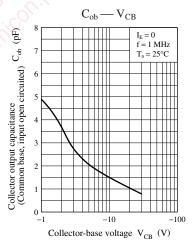






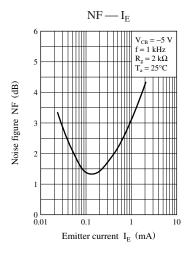


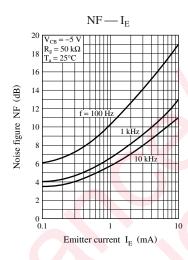


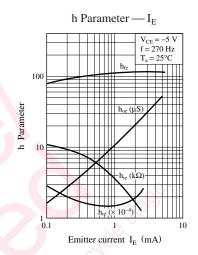


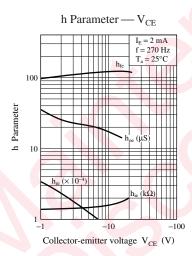
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Panasonic









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