XP01401 (XP1401)

Silicon PNP epitaxial planer transistor

For general amplification

Features

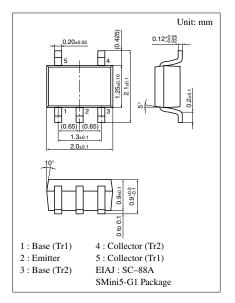
- Two elements incorporated into one package. (Emitter-coupled transistors)
- Reduction of the mounting area and assembly cost by one half.

Basic Part Number of Element

• $2SB0709A(2SB709A) \times 2$ elements

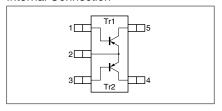
Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Ratings	Unit	
Rating of element	Collector to base voltage	V_{CBO}	-60	V	
	Collector to emitter voltage	V_{CEO}	-50	V	
	Emitter to base voltage	V_{EBO}	-7	V	
	Collector current	I_{C}	-100	mA	
	Peak collector current	I_{CP}	-200	mA	
Overall	Total power dissipation	P_{T}	150	mW	
	Junction temperature	T_{j}	150	°C	
	Storage temperature	T_{stg}	-55 to +150	°C	



Marking Symbol: 5V

Internal Connection



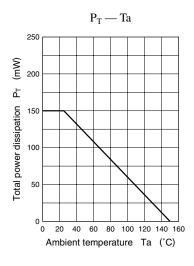
Electrical Characteristics (Ta=25°C)

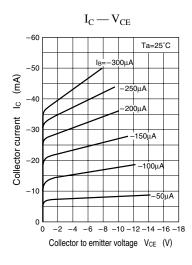
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V _{CBO}	$I_{\rm C} = -10\mu A, I_{\rm E} = 0$	-60			V
Collector to emitter voltage	V _{CEO}	$I_{\rm C} = -2mA$, $I_{\rm B} = 0$	-50			V
Emitter to base voltage	V _{EBO}	$I_{\rm E} = -10\mu A, I_{\rm C} = 0$	-7			V
Collector cutoff current	I_{CBO}	$V_{CB} = -20V, I_E = 0$			- 0.1	μΑ
Collector cutoff current	I _{CEO}	$V_{CE} = -10V, I_B = 0$			-100	μА
Forward current transfer ratio	h _{FE}	$V_{CE} = -10V, I_{C} = -2mA$	160		460	
Forward current transfer h _{FE} ratio	h _{FE} (small/large)*1	$V_{CE} = -10V, I_{C} = -2mA$	0.5	0.99		
Collector to 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	$V_{CB} = -10V$, $I_E = 1mA$, $f = 200MHz$		80		MHz
Collector output capacitance	C _{ob}	$V_{CB} = -10V$, $I_E = 0$, $f = 1MHz$		2.7		pF

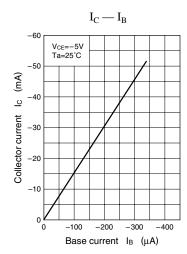
^{*1} Ratio between 2 elements

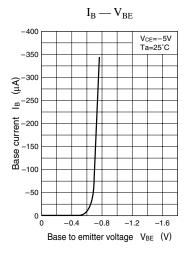
Note) The Part number in the Parenthesis shows conventional part number.

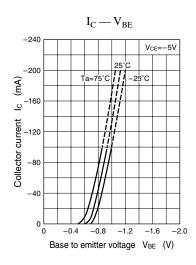
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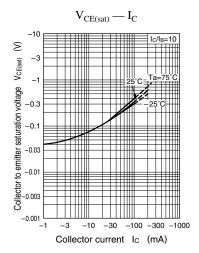


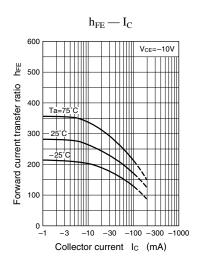


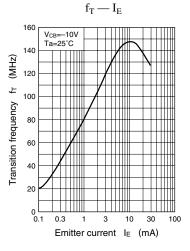


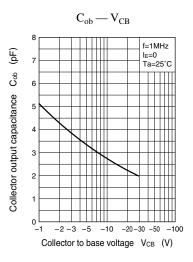




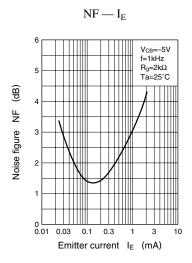


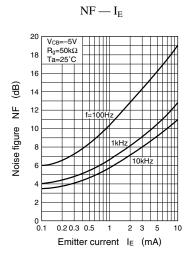


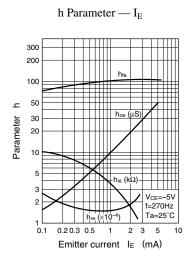


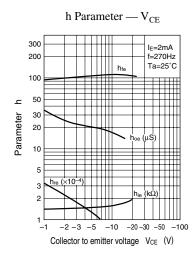


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