

# XN04482 (XN4482)

## Silicon PNP epitaxial planer transistor

For general amplification

### ■ Features

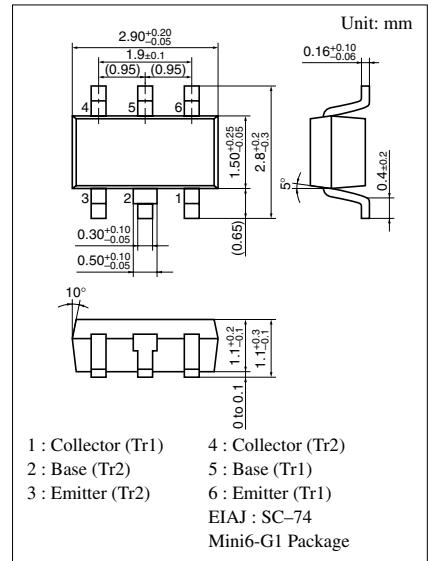
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

### ■ Basic Part Number of Element

- 2SB0709A(2SB709A) + 2SB0710(2SB710)

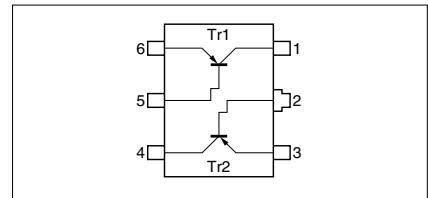
### ■ Absolute Maximum Ratings (Ta=25°C)

	Parameter	Symbol	Rated	Unit
Tr1	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
Tr2	Collector to base voltage	$V_{CBO}$	-60	V
	Collector to emitter voltage	$V_{CEO}$	-50	V
	Emitter to base voltage	$V_{EBO}$	-5	V
	Collector current	$I_C$	-500	mA
	Peak collector current	$I_{CP}$	-1	A
Overall	Total power dissipation	$P_T$	300	mW
	Junction temperature	$T_j$	150	°C
	Storage temperature	$T_{stg}$	-55 to +150	°C



Marking Symbol: ON

Internal Connection



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

■ Electrical Characteristics (Ta=25°C)

● Tr1

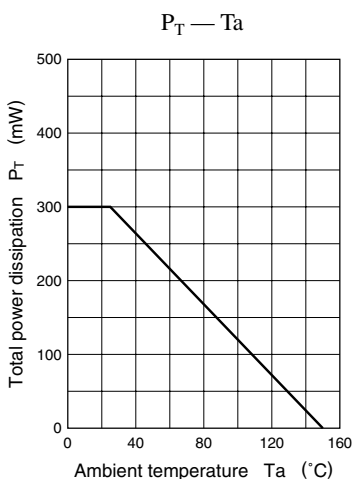
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V <sub>CBO</sub>	I <sub>C</sub> = -10μA, I <sub>E</sub> = 0	-60			V
Collector to emitter voltage	V <sub>CEO</sub>	I <sub>C</sub> = -2mA, I <sub>B</sub> = 0	-50			V
Emitter to base voltage	V <sub>EBO</sub>	I <sub>E</sub> = -10μA, I <sub>C</sub> = 0	-7			V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = -20V, I <sub>E</sub> = 0			-0.1	μA
	I <sub>CEO</sub>	V <sub>CE</sub> = -10V, I <sub>B</sub> = 0			-100	μA
Forward current transfer ratio	h <sub>FE</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -2mA	160		460	
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -100mA, I <sub>B</sub> = -10mA		-0.3	-0.5	V
Transition frequency	f <sub>T</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 1mA, f = 200MHz		80		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz		2.7		pF

● Tr2

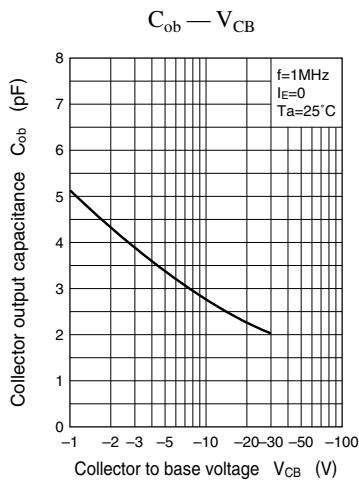
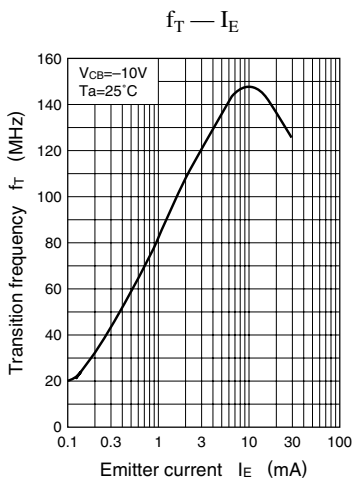
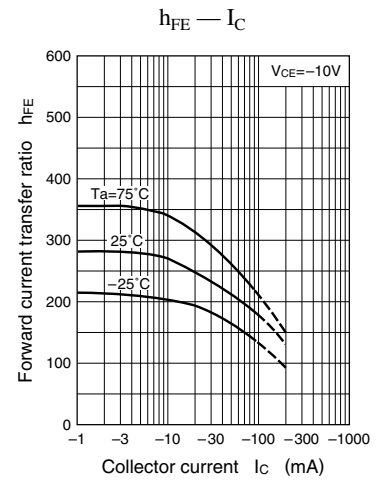
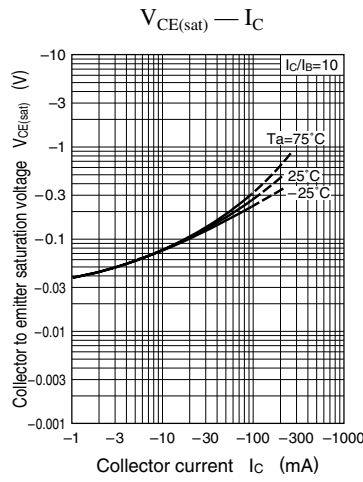
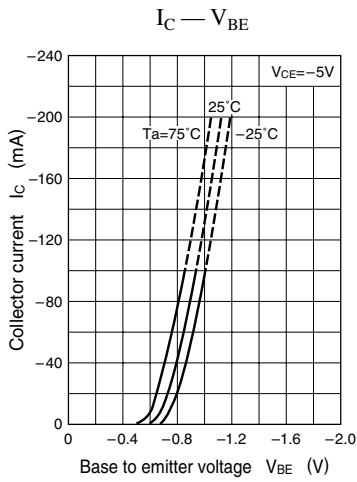
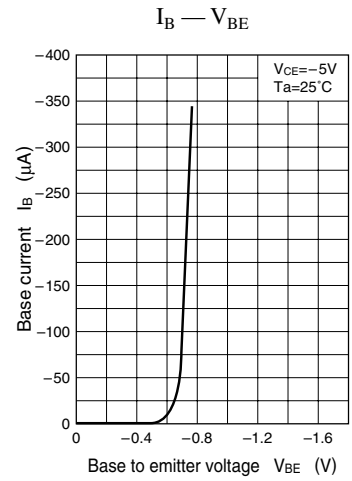
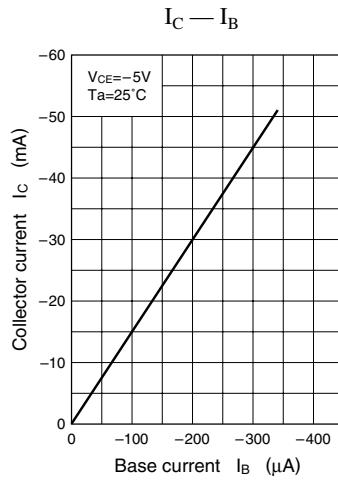
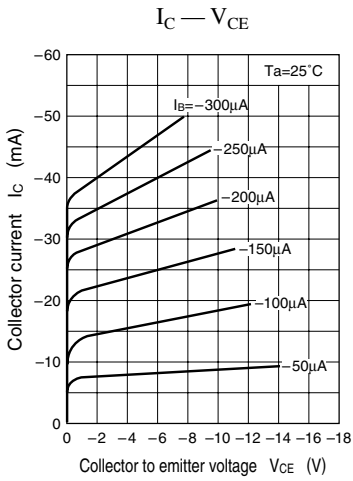
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V <sub>CBO</sub>	I <sub>C</sub> = -10μA, I <sub>E</sub> = 0	-60			V
Collector to emitter voltage	V <sub>CEO</sub>	I <sub>C</sub> = -2mA, I <sub>B</sub> = 0	-50			V
Emitter to base voltage	V <sub>EBO</sub>	I <sub>E</sub> = -10μA, I <sub>C</sub> = 0	-5			V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = -20V, I <sub>E</sub> = 0			-0.1	μA
Forward current transfer ratio	h <sub>FE1</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -150mA*	85		340	
	h <sub>FE2</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -500mA*	40			
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -300mA, I <sub>B</sub> = -30mA*		-0.35	-0.6	V
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -300mA, I <sub>B</sub> = -30mA*		-1.1	-1.5	V
Transition frequency	f <sub>T</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 1mA, f = 200MHz		200		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz		5	15	pF

\* Pulse measurement

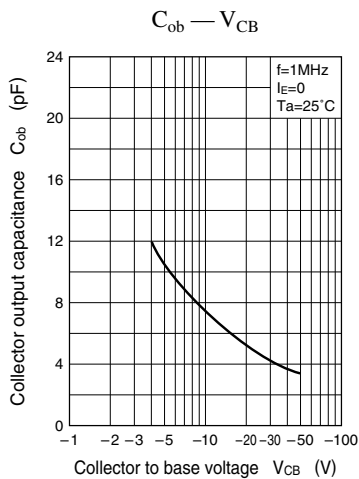
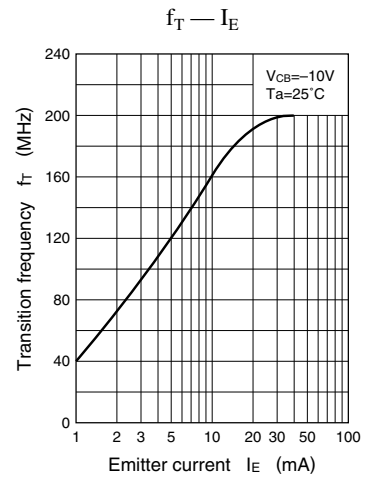
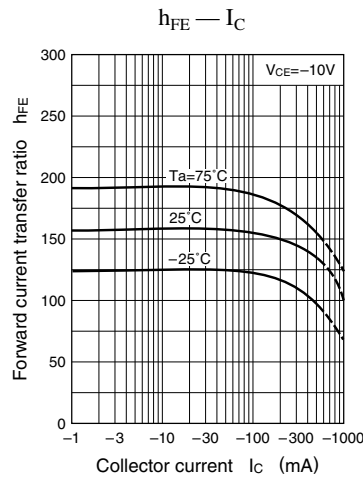
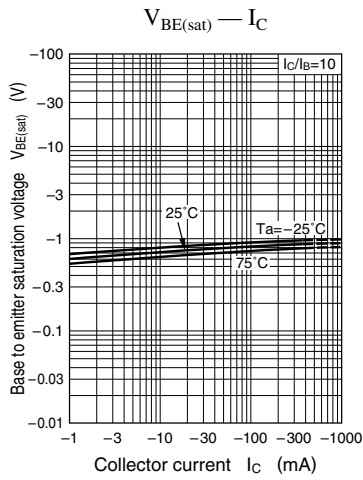
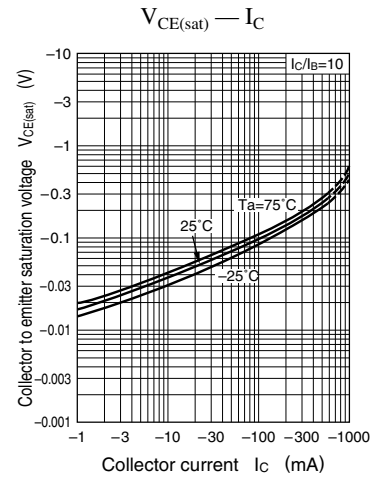
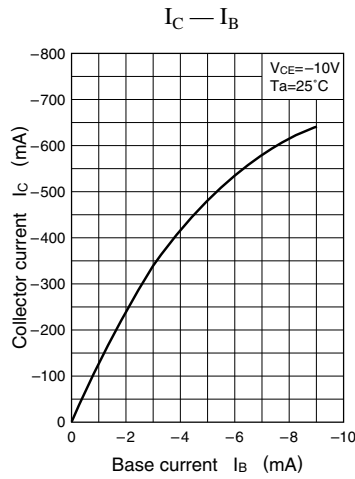
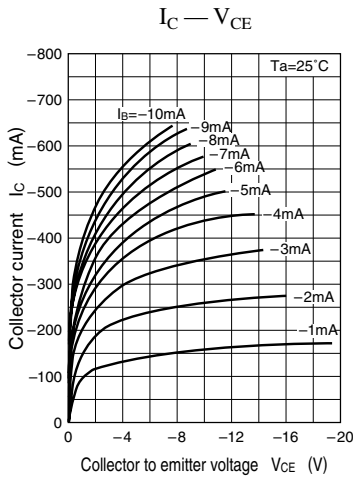
Common characteristics chart



Characteristics charts of Tr1



Characteristics charts of Tr2



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