

XN04482 (XN4482)

Silicon PNP epitaxial planer transistor

For general amplification

■ Features

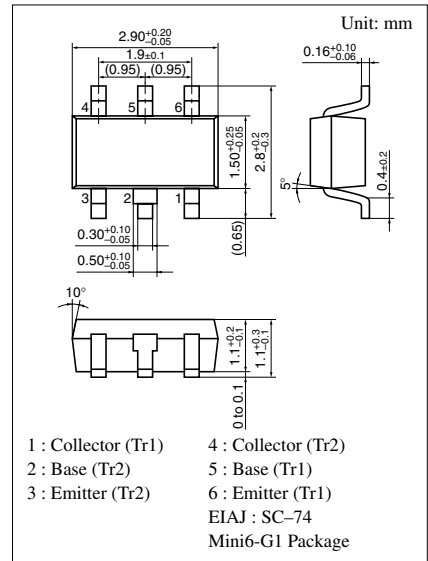
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

■ Basic Part Number of Element

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

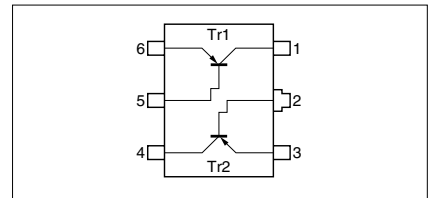
■ Absolute Maximum Ratings (Ta=25°C)

	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

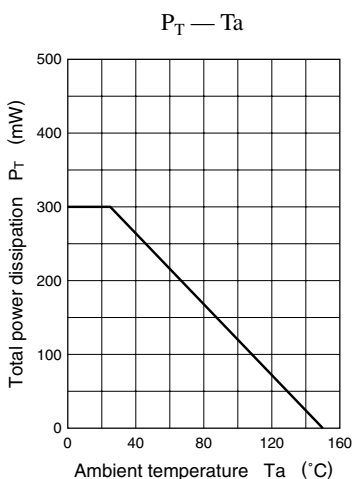
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V _{CBO}	I _C = -10μA, I _E = 0	-60			V
Collector to emitter voltage	V _{CEO}	I _C = -2mA, I _B = 0	-50			V
Emitter to base voltage	V _{EBO}	I _E = -10μA, I _C = 0	-7			V
Collector cutoff current	I _{CBO}	V _{CB} = -20V, I _E = 0			-0.1	μA
	I _{CEO}	V _{CE} = -10V, I _B = 0			-100	μA
Forward current transfer ratio	h _{FE}	V _{CE} = -10V, I _C = -2mA	160		460	
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = -100mA, I _B = -10mA		-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

● Tr2

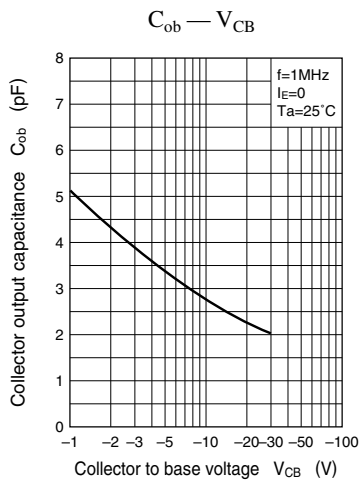
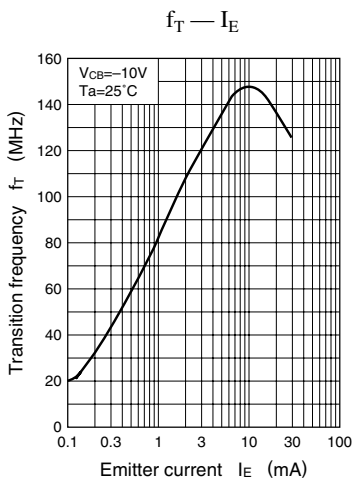
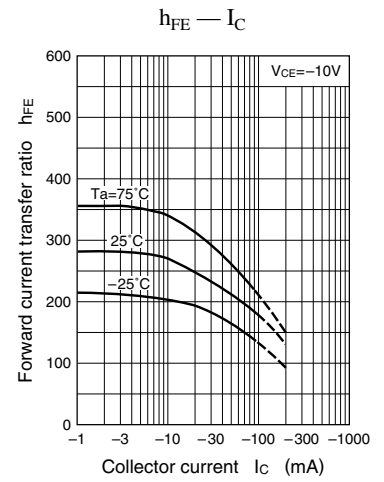
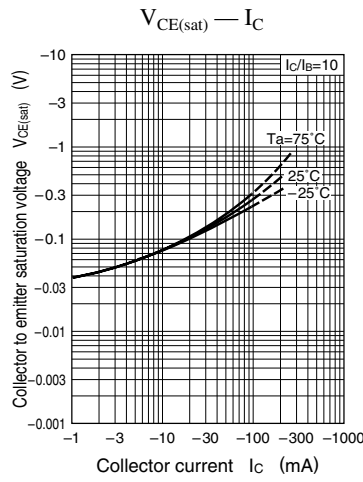
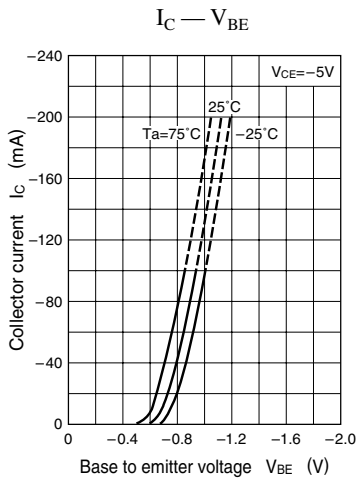
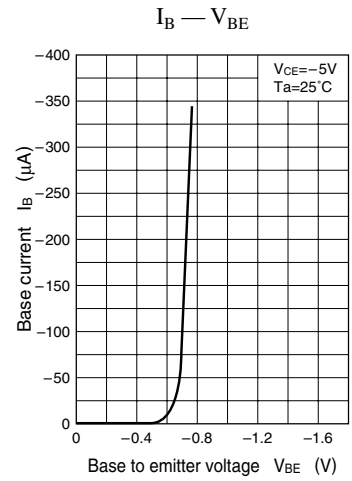
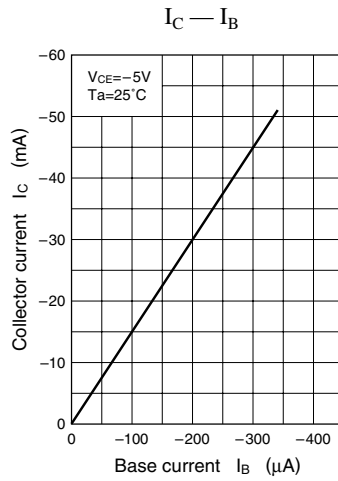
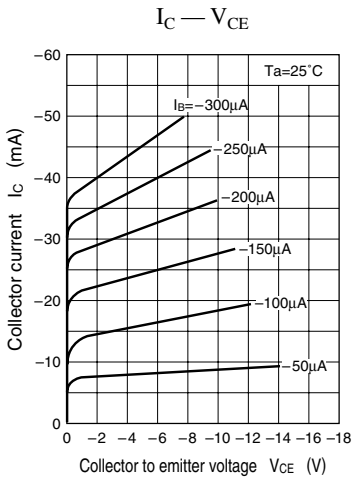
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V _{CBO}	I _C = -10μA, I _E = 0	-60			V
Collector to emitter voltage	V _{CEO}	I _C = -2mA, I _B = 0	-50			V
Emitter to base voltage	V _{EBO}	I _E = -10μA, I _C = 0	-5			V
Collector cutoff current	I _{CBO}	V _{CB} = -20V, I _E = 0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

* Pulse measurement

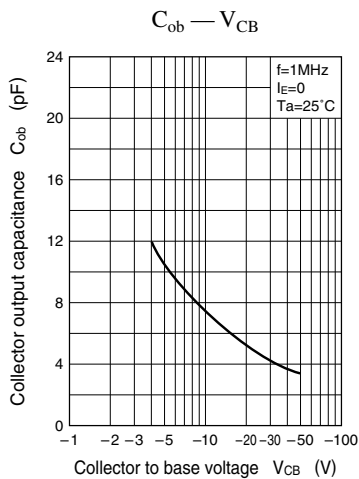
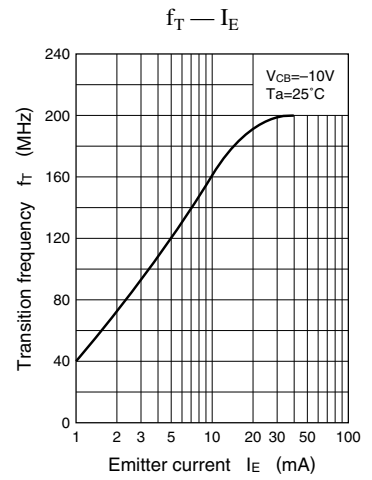
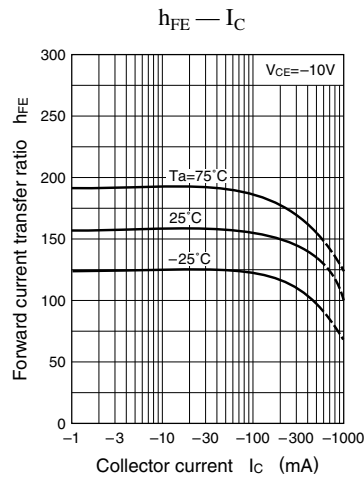
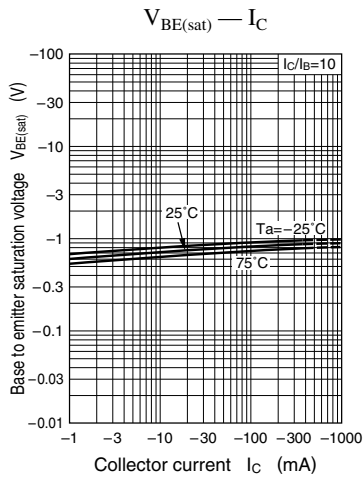
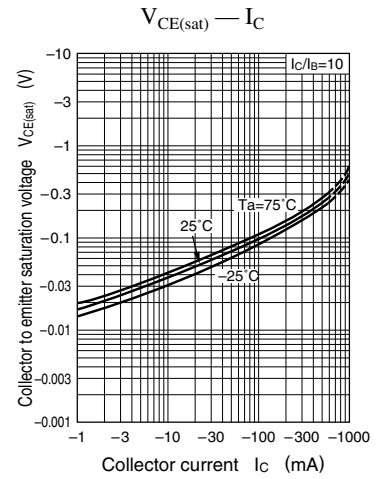
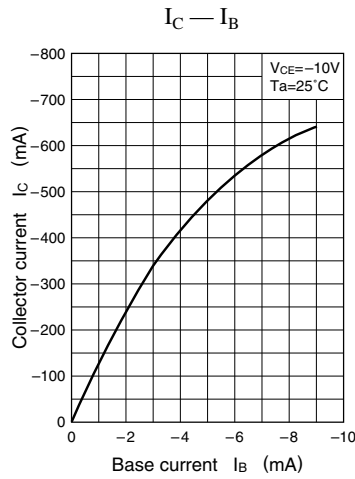
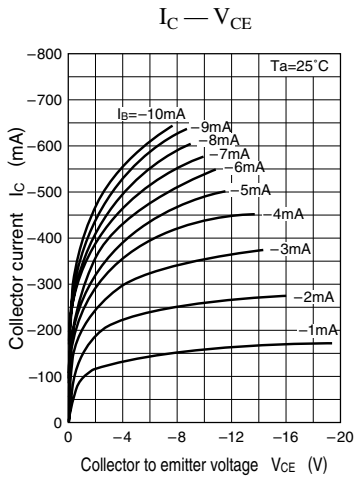
Common characteristics chart



Characteristics charts of Tr1



Characteristics charts of Tr2



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