

XN4482

Silicon PNP epitaxial planer transistor

For general amplification

■ Features

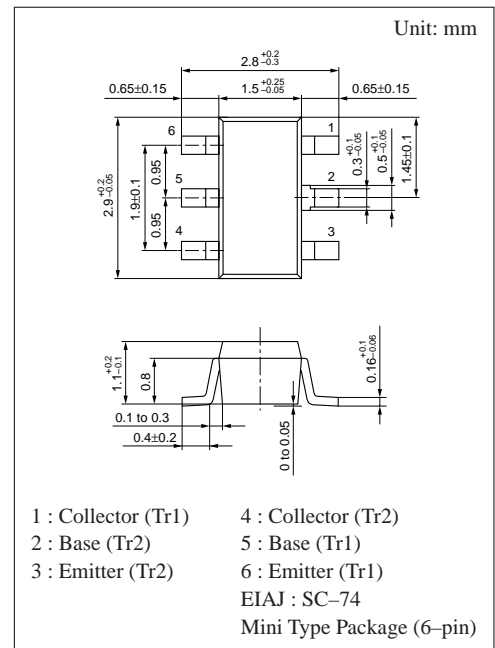
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

■ Basic Part Number of Element

- 2SB709+2SB710

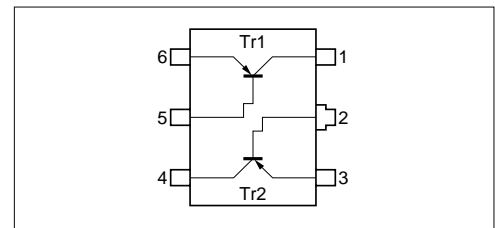
■ Absolute Maximum Ratings (Ta=25°C)

	Parameter	Symbol	Ratings	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



Electrical Characteristics (Ta=25°C)

• Tr1

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	$I_C = -10\mu A, I_E = 0$	-60			V
Collector to emitter voltage	V_{CEO}	$I_C = -2mA, I_B = 0$	-50			V
Emitter to base voltage	V_{EBO}	$I_E = -10\mu A, I_C = 0$	-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

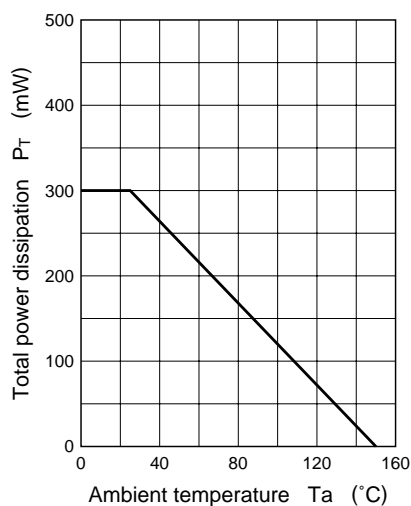
• Tr2

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	$I_C = -10\mu A, I_E = 0$	-60			V
Collector to emitter voltage	V_{CEO}	$I_C = -2mA, I_B = 0$	-50			V
Emitter to base voltage	V_{EBO}	$I_E = -10\mu A, I_C = 0$	-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

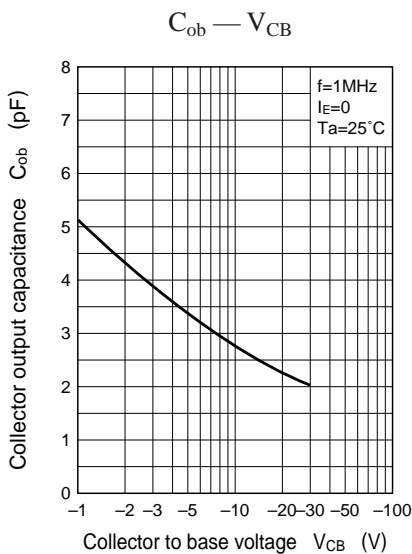
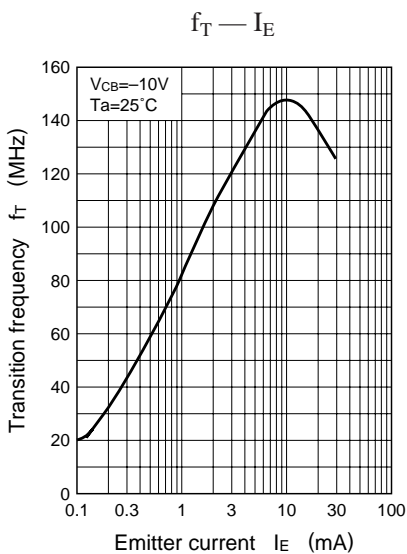
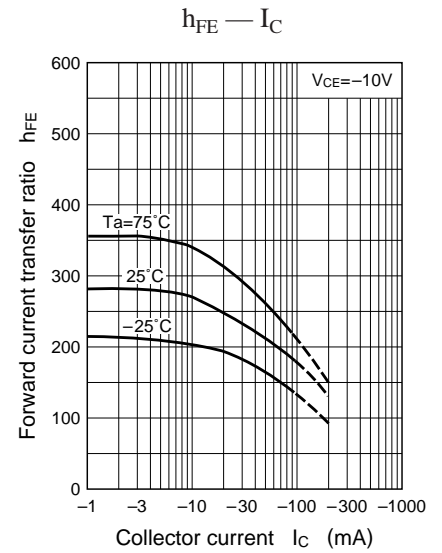
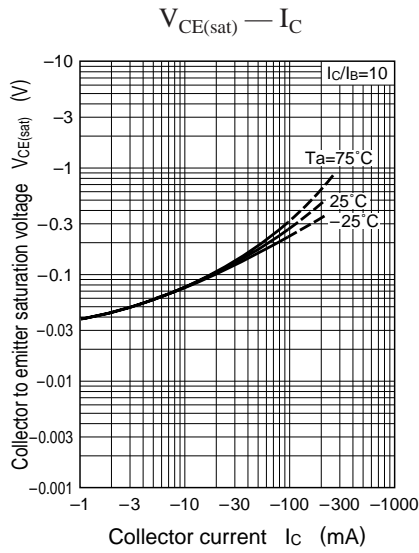
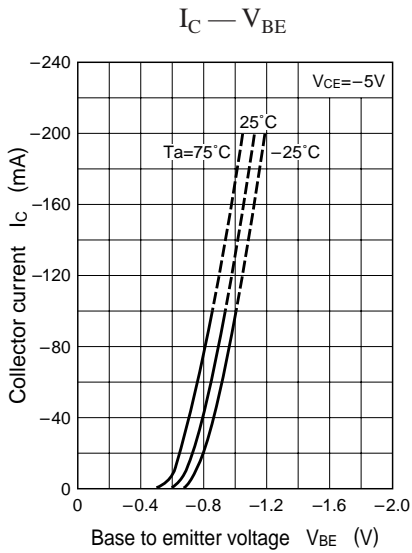
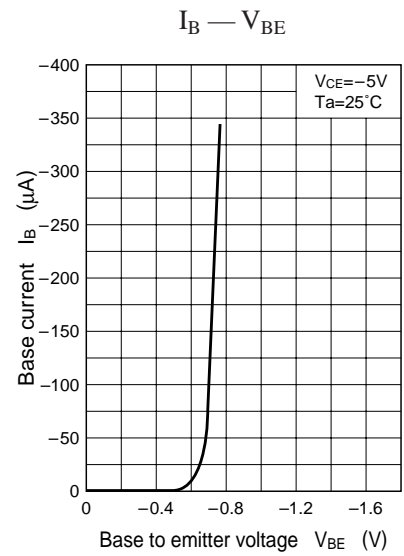
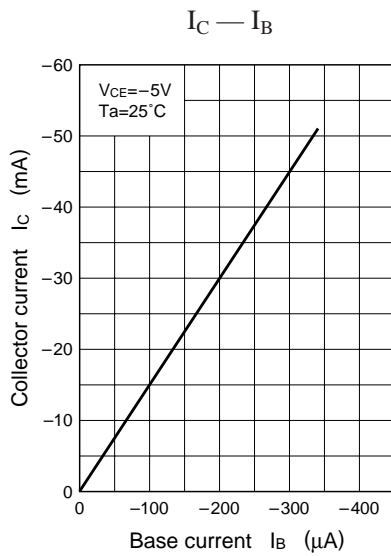
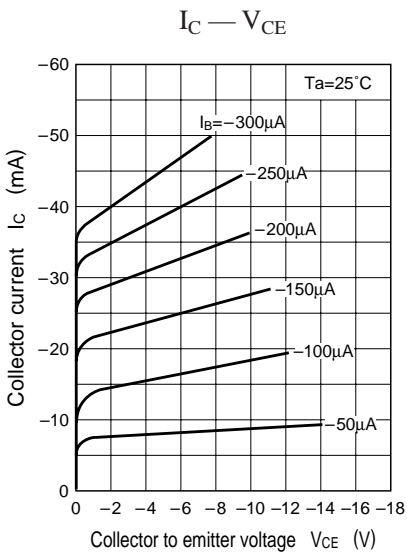
* Pulse measurement

Common characteristics chart

$P_T - T_a$



Characteristics charts of Tr1



Characteristics charts of Tr2

