

XN06537 (XN6537)

Silicon NPN epitaxial planer transistor

For wide-band low-noise amplification

Features

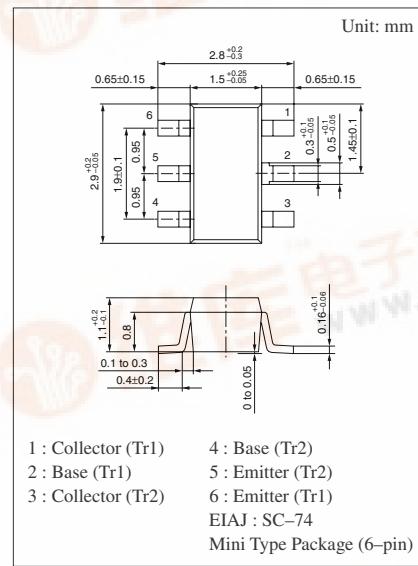
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

Basic Part Number of Element

- 2SC3110 \times 2 elements

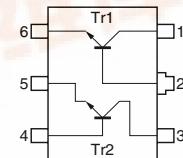
Absolute Maximum Ratings (Ta=25°C)

	Parameter	Symbol	Ratings	Unit
Rating of element	Collector to base voltage	V _{CBO}	15	V
	Collector to emitter voltage	V _{CEO}	12	V
	Emitter to base voltage	V _{EBO}	2.5	V
	Collector current	I _C	30	mA
	Peak collector current	I _{CP}	50	mA
Overall	Total power dissipation	P _T	300	mW
	Junction temperature	T _j	150	°C
	Storage temperature	T _{stg}	-55 to +150	°C



Marking Symbol: 7H

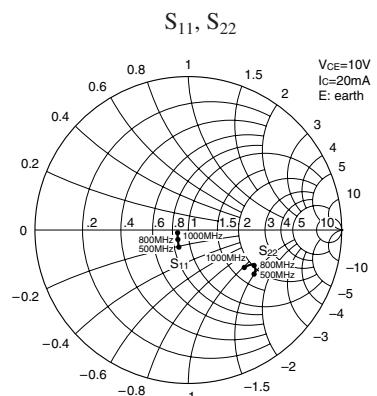
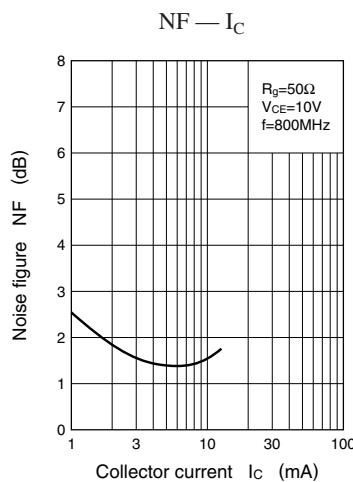
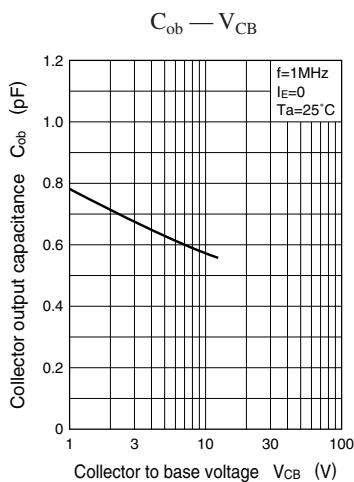
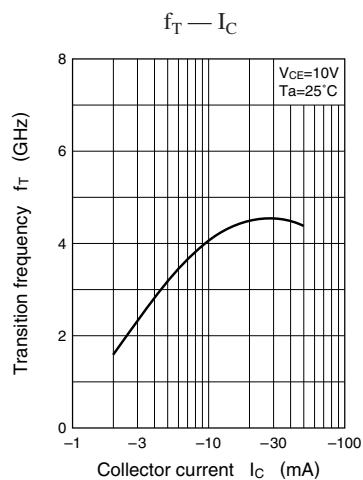
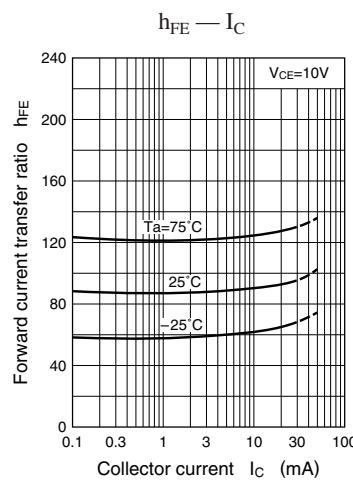
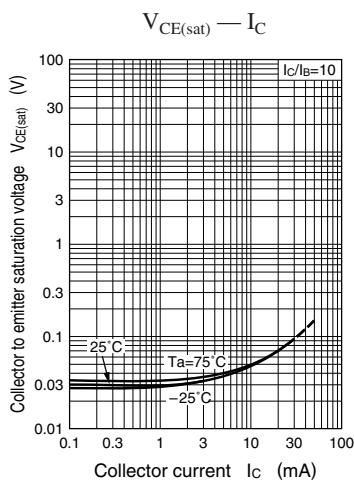
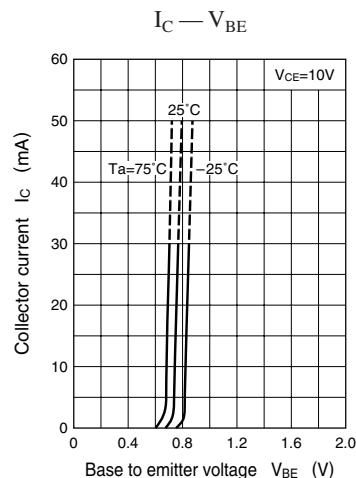
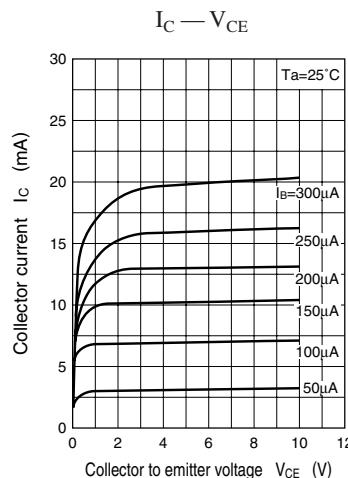
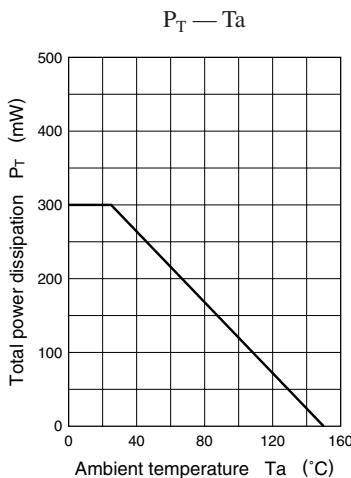
Internal Connection



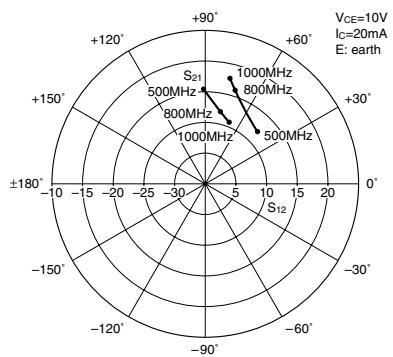
Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I _{CBO}	V _{CB} = 10V, I _E = 0			100	nA
Emitter cutoff current	I _{EBO}	V _{EB} = 2V, I _C = 0			1	μA
Forward current transfer ratio	h _{FE}	V _{CE} = 10V, I _C = 10mA	40			
Forward current transfer h _{FE} ratio	h _{FE} (small/large) ^{*1}	V _{CE} = 10V, I _C = 10mA	0.5	0.99		
Transition frequency	f _T	V _{CE} = 10V, I _C = 10mA, f = 200MHz		4.5		GHz
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz			1.2	pF
Forward transfer gain	S _{21e} ²	V _{CE} = 10V, I _C = 20mA, f = 0.8GHz		12		dB
Power gain	GUM	V _{CE} = 10V, I _C = 20mA, f = 0.8GHz		14		dB
Noise figure	NF	V _{CE} = 10V, I _C = 5mA, f = 0.8GHz		1.3		dB

*1 Ratio between 2 elements



S_{12}, S_{21}



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