

XN04503 (XN4503)

Silicon NPN epitaxial planer transistor

For amplification of low frequency output

■ Features

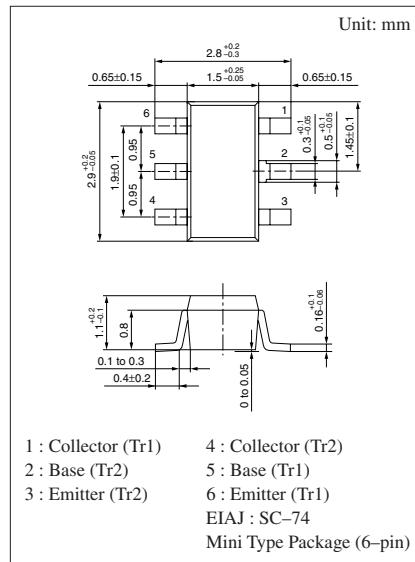
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

■ Basic Part Number of Element

- 2SD0813(2SD813) × 2 elements

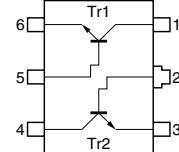
■ Absolute Maximum Ratings (Ta=25°C)

	Parameter	Symbol	Ratings	Unit
Rating of element	Collector to base voltage	V _{CBO}	25	V
	Collector to emitter voltage	V _{CEO}	20	V
	Emitter to base voltage	V _{EBO}	7	V
	Collector current	I _C	0.5	A
	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: 5Y

Internal Connection

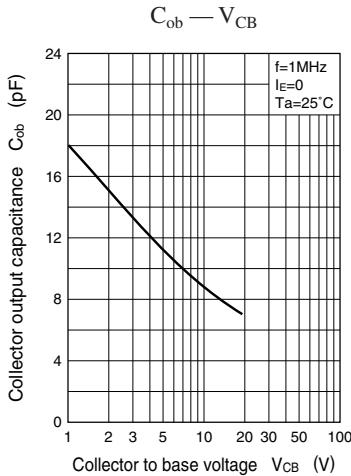
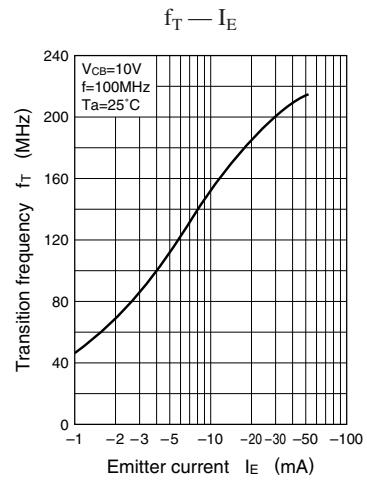
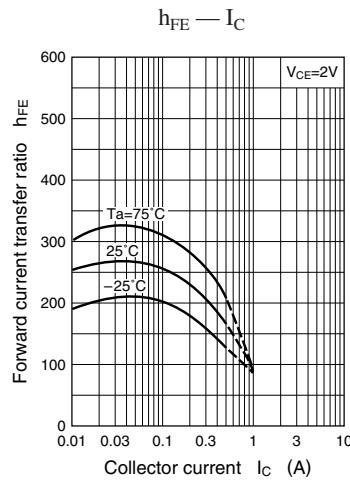
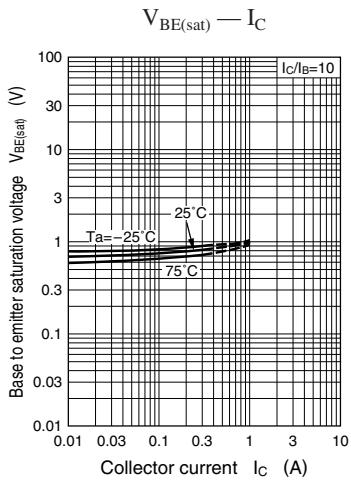
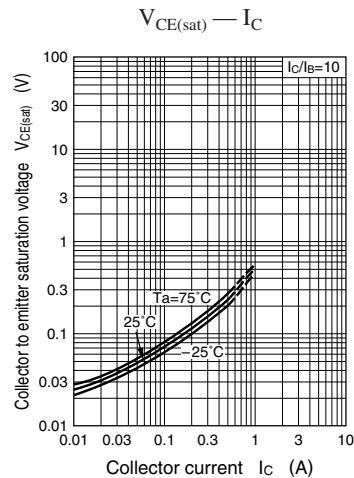
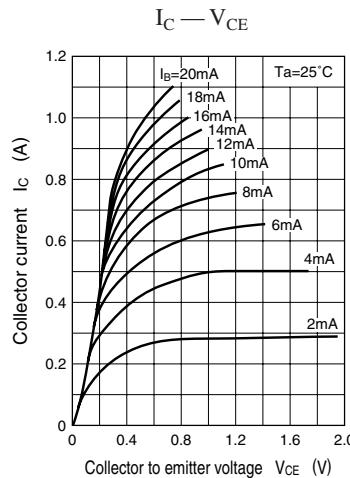
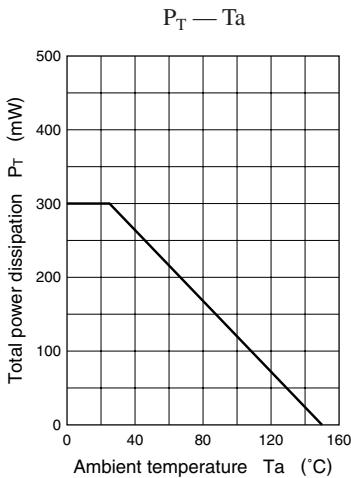


■ Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V _{CBO}	I _C = 10µA, I _E = 0	25			V
Collector to emitter voltage	V _{CEO}	I _C = 1mA, I _B = 0	20			V
Emitter to base voltage	V _{EBO}	I _E = 10µA, I _C = 0	7			V
Collector cutoff current	I _{CBO}	V _{CB} = 25V, I _E = 0			0.1	µA
	I _{CEO}	V _{CE} = 20V, I _B = 0			1	µA
Forward current transfer ratio	h _{FE1}	V _{CE} = 2V, I _C = 500mA*	65		350	
	h _{FE2}	V _{CE} = 2V, I _C = 1A*	50			
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 500mA, I _B = 20mA*		0.2	0.4	V
Base to emitter saturation voltage	V _{BE(sat)}	I _C = 500mA, I _B = 50mA*			1.2	V
Transition frequency	f _T	V _{CB} = 10V, I _E = -50mA, f = 200MHz		150		MHz
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz		6		pF

* Pulse measurement

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



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