XN04509 (XN4509)

Silicon NPN epitaxial planer transistor

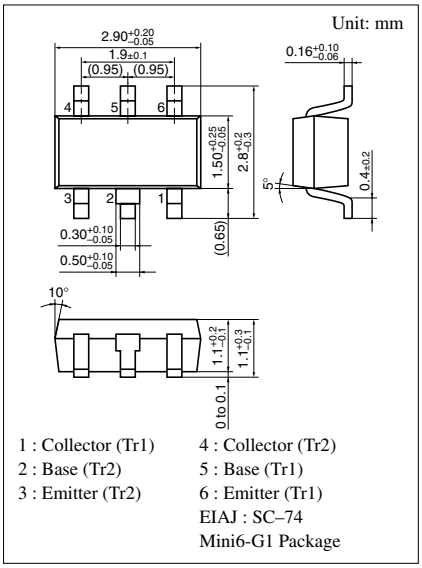
For high-frequency amplification

Features

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

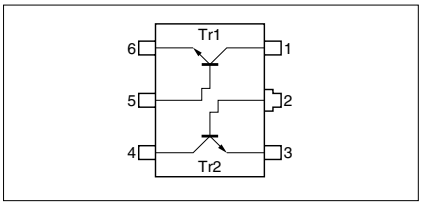
Basic Part Number of Element

- 2SC4561 × 2 elements



Marking Symbol: AO

Internal Connection



Absolute Maximum Ratings (Ta=25˚C)

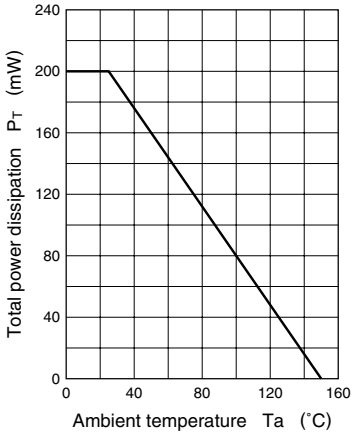
Parameter		Symbol	Ratings	Unit
Rating of element	Collector to base voltage	V_{CBO}	50	V
	Collector to emitter voltage	V_{CEO}	50	V
	Emitter to base voltage	V_{EBO}	5	V
	Collector current	I_C	50	mA
Overall	Total power dissipation	P_T	200	mW
	Junction temperature	T_j	150	˚C
	Storage temperature	T_{stg}	–55 to +150	˚C

Electrical Characteristics (Ta=25˚C)

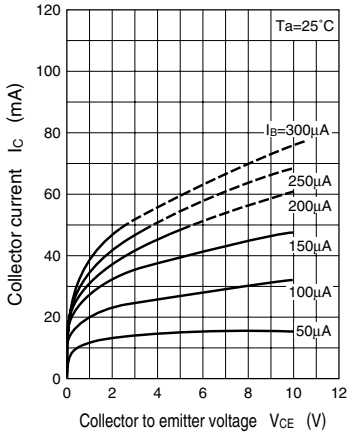
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	I_C = 10μA, I_E = 0	50			V
Collector to emitter voltage	V_{CEO}	I_C = 1mA, I_B = 0	50			V
Emitter to base voltage	V_{EBO}	I_E = 10μA, I_C = 0	5			V
Collector cutoff current	I_{CBO}	V_{CB} = 10V, I_E = 0			0.1	μA
	I_{CEO}	V_{CE} = 10V, I_B = 0			100	μA
Forward current transfer ratio	h_{FE}	V_{CE} = 10V, I_C = 2mA	200		500	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 10mA, I_B = 1mA		0.06	0.3	V
Transition frequency	f_T	V_{CB} = 10V, I_E = –2mA, f = 200MHz		250		MHz
Collector output capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz		1.5		pF

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

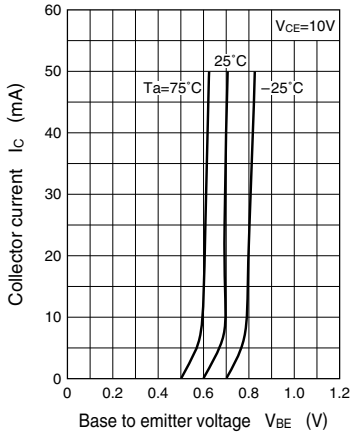
P_T — Ta



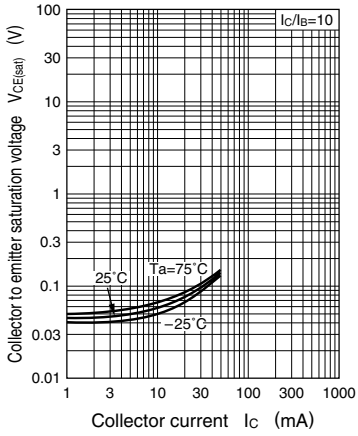
I_C — V_{CE}



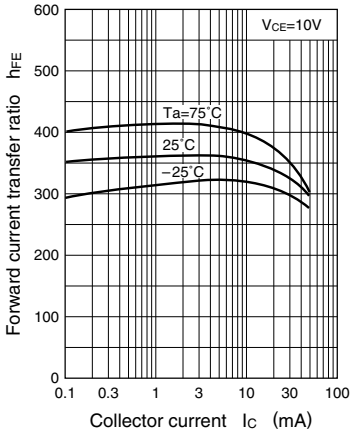
I_C — V_{BE}



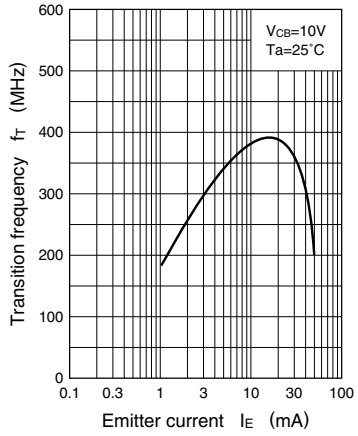
$V_{CE(sat)}$ — I_C



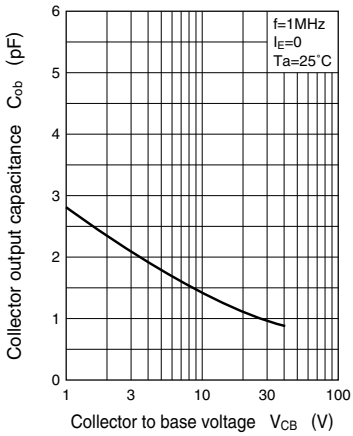
h_{FE} — I_C



f_T — I_E



C_{ob} — V_{CB}



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