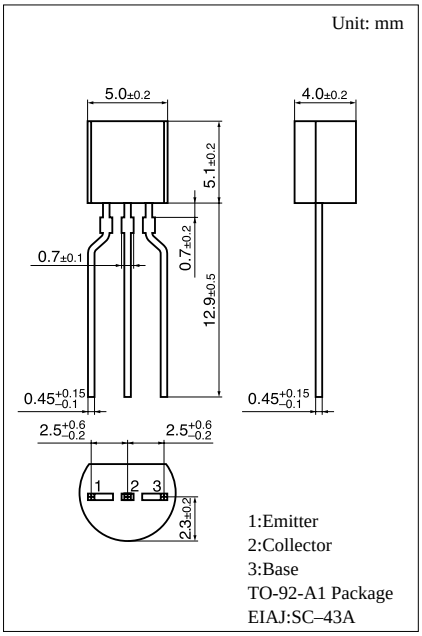
2SA1127

Silicon PNP epitaxial planer type

For low-frequency and low-noise amplification
Complementary to 2SC2634



Features

- Low noise characteristics.
- High foward current transfer ratio h_{FE}.

Absolute Maximum Ratings (Ta=25˚C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	–60	V
Collector to emitter voltage	V_{CEO}	–55	V
Emitter to base voltage	V_{EBO}	–7	V
Peak collector current	I_{CP}	–200	mA
Collector current	I_C	–100	mA
Collector power dissipation	P_C	400	mW
Junction temperature	T_j	150	˚C
Storage temperature	T_{stg}	–55 ~ +150	˚C

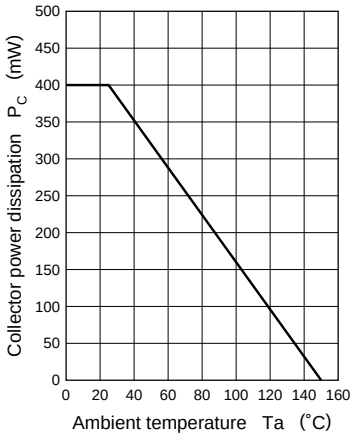
Electrical Characteristics (Ta=25˚C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = –10V, I_E = 0		–1	–100	nA
	I_{CEO}	V_{CE} = –10V, I_B = 0		– 0.01	–1	μA
Collector to base voltage	V_{CBO}	I_C = –10μA, I_E = 0	–60			V
Collector to emitter voltage	V_{CEO}	I_C = –1mA, I_B = 0	–55			V
Emitter to base voltage	V_{EBO}	I_E = –10μA, I_C = 0	–7			V
Forward current transfer ratio	h_{FE}*	V_{CE} = –5V, I_C = –2mA	180		700	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = –100mA, I_B = –10mA			– 0.6	V
Base to emitter voltage	V_{BE}	V_{CE} = –1V, I_C = –30mA			–1	V
Transition frequency	f_T	V_{CB} = –5V, I_E = 2mA, f = 200MHz		200		MHz
Noise voltage	NV	V_{CE} = –10V, I_C = –1mA, G_V = 80dB R_g = 100kΩ, Function = FLAT			150	mV

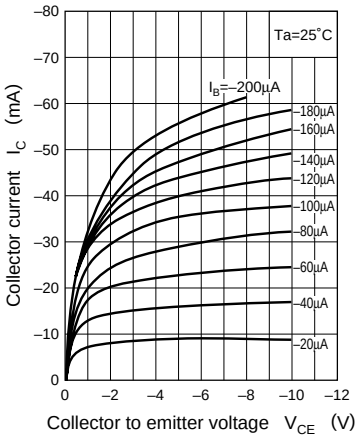
*h_{FE} Rank classification

Rank	R	S	T
h_{FE}	180 ~ 360	260 ~ 520	360 ~ 700

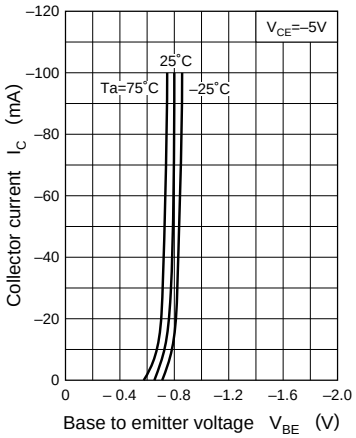
P_C — Ta



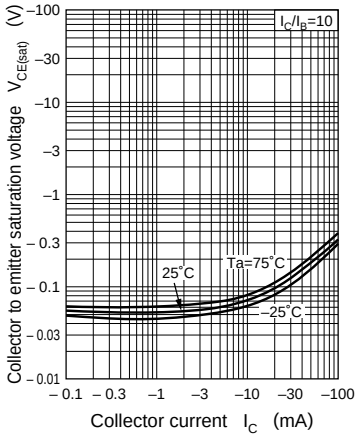
I_C — V_{CE}



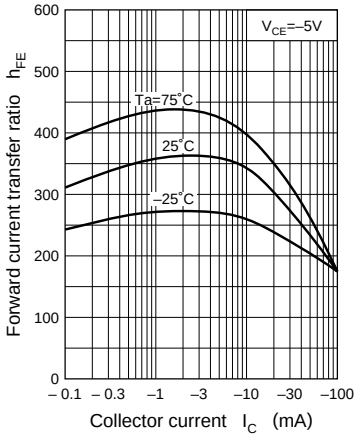
I_C — V_{BE}



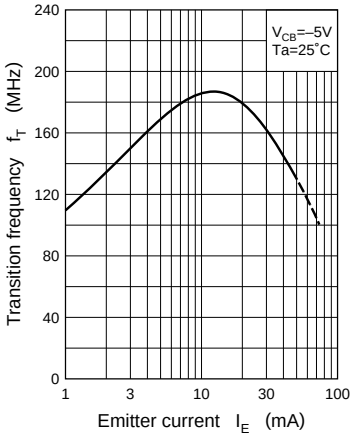
$V_{CE(sat)}$ — I_C



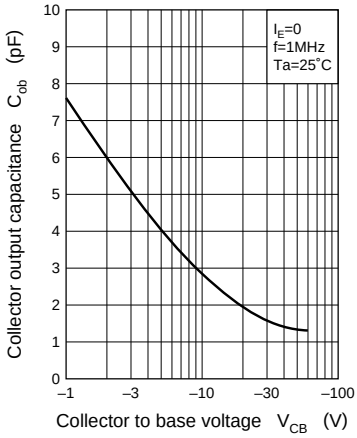
h_{FE} — I_C



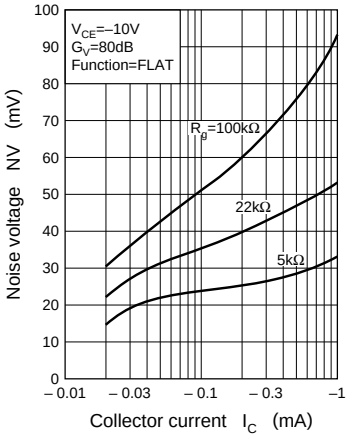
f_T — I_E



C_{ob} — V_{CB}



NV — I_C



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