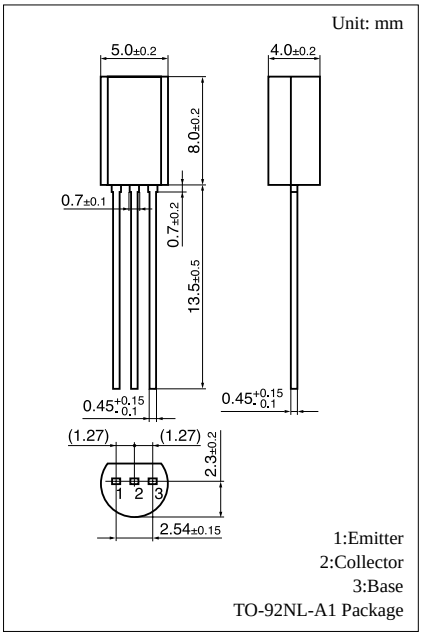
2SB1221

Silicon PNP epitaxial planer type

For general amplification
Complementary to 2SC3941



Features

- Low collector to emitter saturation voltage $V_{CE(sat)}$.
- Allowing supply with the radial taping.

Absolute Maximum Ratings (Ta=25˚C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	–250	V
Collector to emitter voltage	V_{CEO}	–200	V
Emitter to base voltage	V_{EBO}	–5	V
Peak collector current	I_{CP}	–100	mA
Collector current	I_C	–70	mA
Collector power dissipation	P_C	1	W
Junction temperature	T_j	150	˚C
Storage temperature	T_{stg}	–55 ~ +150	˚C

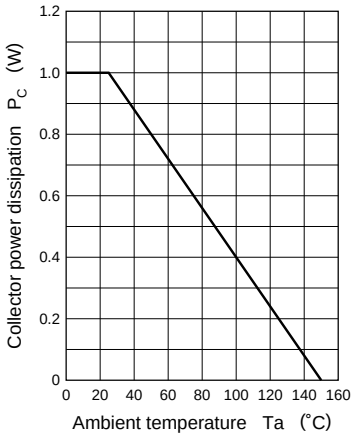
Electrical Characteristics (Ta=25˚C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = –12V, I_E = 0			–2	μA
Collector to emitter voltage	V_{CEO}	I_C = –100μA, I_B = 0	–200			V
Emitter to base voltage	V_{EBO}	I_E = –1μA, I_C = 0	–5			V
Forward current transfer ratio	h_{FE}*	V_{CE} = –10V, I_C = –5mA	60		220	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = –50mA, I_B = –5mA			–1.5	V
Transition frequency	f_T	V_{CB} = –10V, I_E = 10mA, f = 200MHz	50	80		MHz
Collector output capacitance	C_{ob}	V_{CB} = –10V, I_E = 0, f = 1MHz		5	10	pF

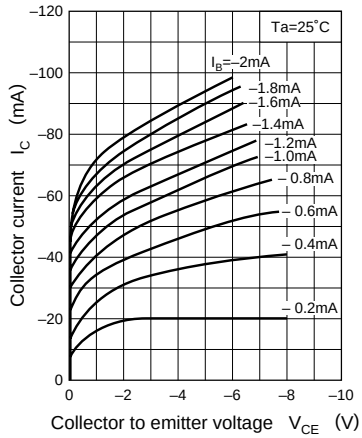
*h_{FE} Rank classification

Rank	Q	R
h_{FE}	60 ~ 150	100 ~ 220

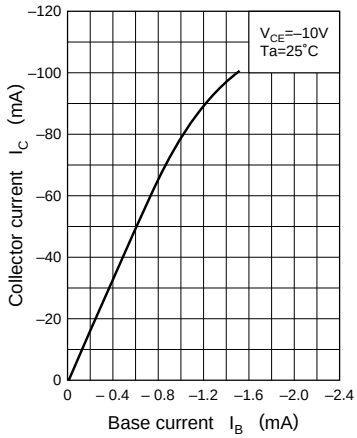
P_C — Ta



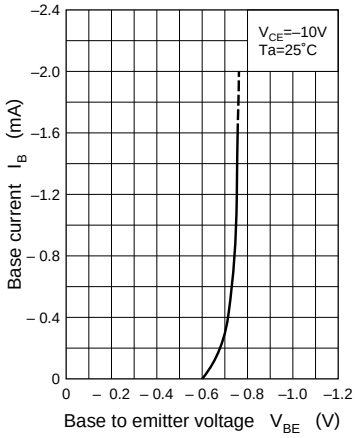
I_C — V_{CE}



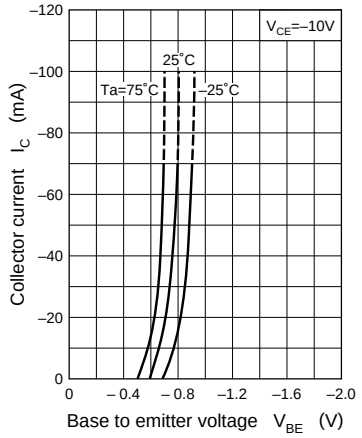
I_C — I_B



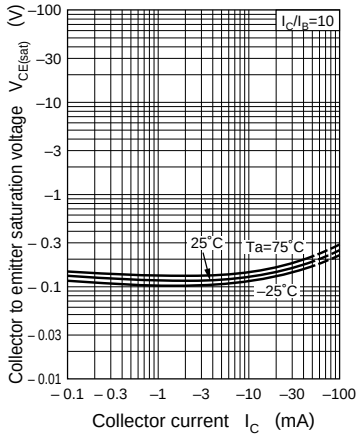
I_B — V_{BE}



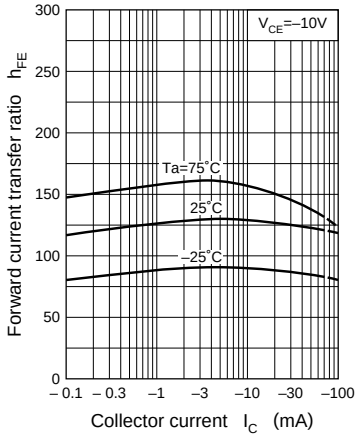
I_C — V_{BE}



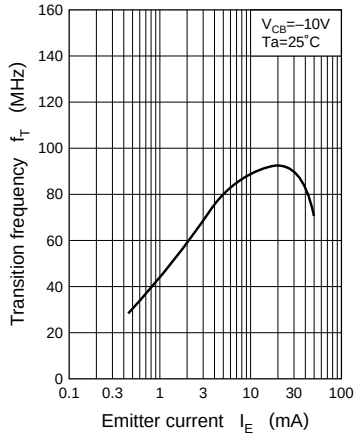
$V_{CE(sat)}$ — I_C



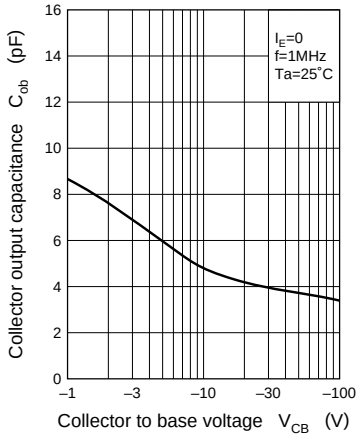
h_{FE} — I_C



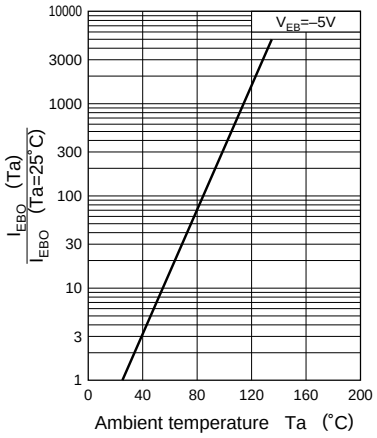
f_T — I_E



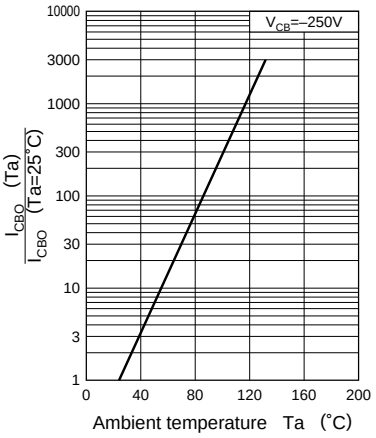
C_{ob} — V_{CB}



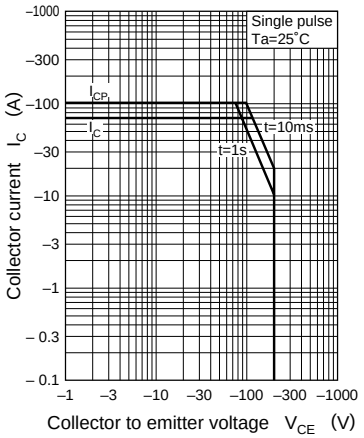
I_{EBO} — Ta



I_{CBO} — Ta



Area of safe operation (ASO)



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