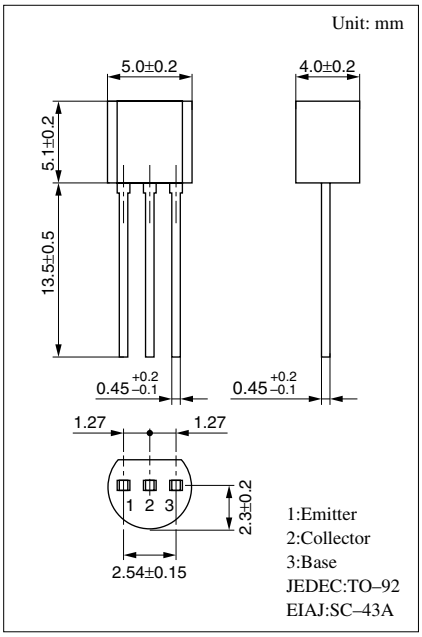
2SA0720A (2SA720A)

Silicon PNP epitaxial planer type

For low-frequency driver amplification
Complementary to 2SC1318A



Features

- High collector to emitter voltage V_{CEO}.
- Optimum for the driver stage of a low-frequency and 25 to 30W output amplifier.

Absolute Maximum Ratings (Ta=25˚C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	–80	V
Collector to emitter voltage	V_{CEO}	–70	V
Emitter to base voltage	V_{EBO}	–5	V
Peak collector current	I_{CP}	–1	A
Collector current	I_C	– 0.5	A
Collector power dissipation	P_C	625	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} = –20V, I_E = 0			– 0.1	μA
Collector to base voltage	V_{CBO}	I_C = –10μA, I_E = 0	–80			V
Collector to emitter voltage	V_{CEO}	I_C = –2mA, I_B = 0	–70			V
Emitter to base voltage	V_{EBO}	I_E = –10μA, I_C = 0	–5			V
Forward current transfer ratio	h_{FE1} *1	V_{CE} = –10V, I_C = –150mA*2	85		240	
	h_{FE2}	V_{CE} = –10V, I_C = –500mA*2	40			
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = –300mA, I_B = –30mA*2		– 0.2	– 0.6	V
Base to emitter saturation voltage	$V_{BE(sat)}$	I_C = –300mA, I_B = –30mA*2		– 0.85	–1.5	V
Transition frequency	f_T	V_{CB} = –10V, I_E = 50mA, f = 100MHz		120		MHz
Collector output capacitance	C_{ob}	V_{CB} = –10V, I_E = 0, f = 1MHz		20	30	pF

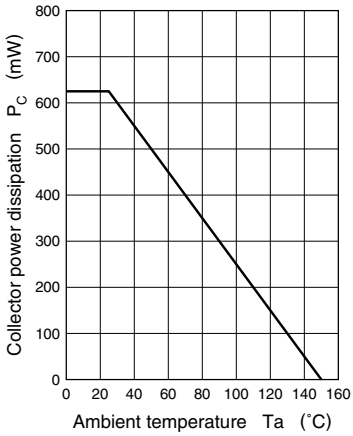
*2 Pulse measurement

*1 h_{FE1} Rank classification

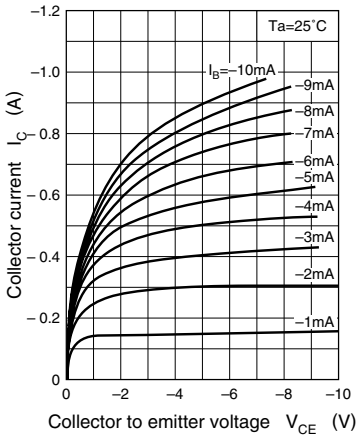
Rank	Q	R
h_{FE1}	85 ~ 170	120 ~ 240

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

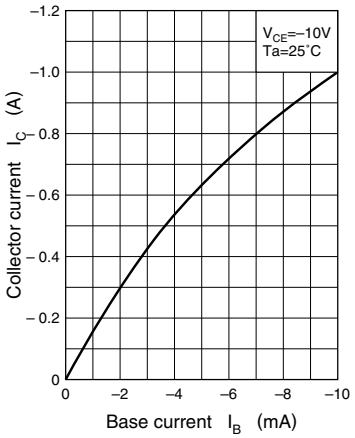
P_C — Ta



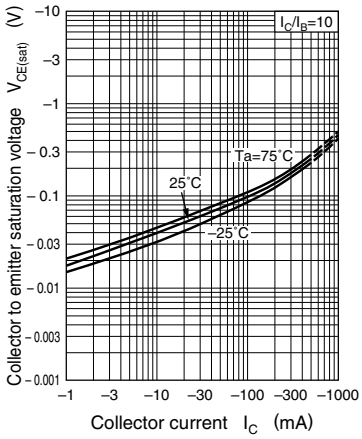
I_C — V_{CE}



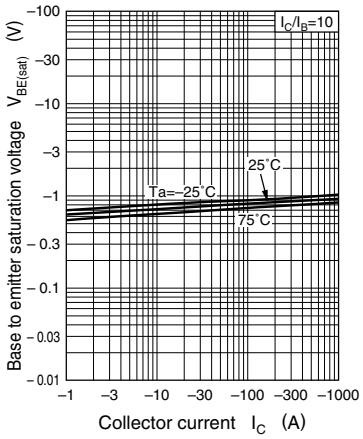
I_C — I_B



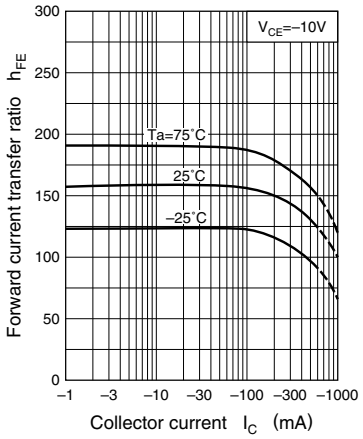
$V_{CE(sat)}$ — I_C



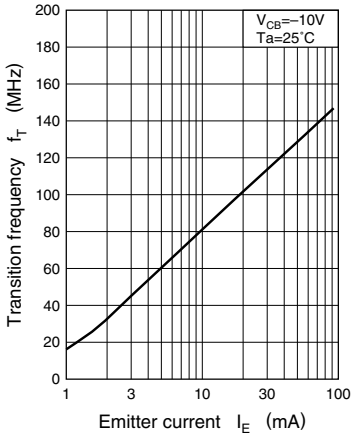
$V_{BE(sat)}$ — I_C



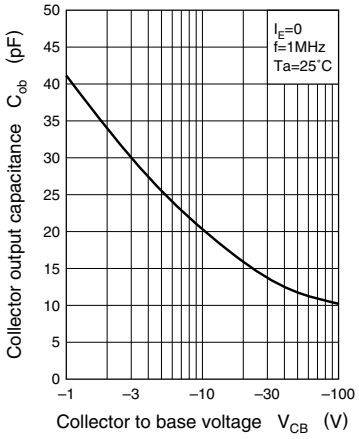
h_{FE} — I_C



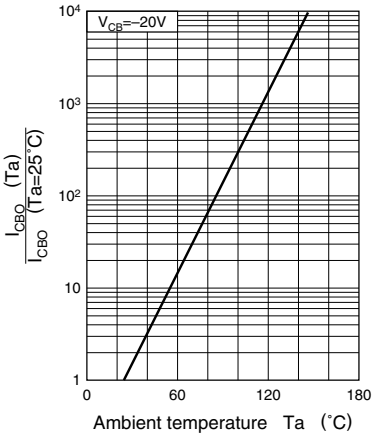
f_T — I_E



C_{ob} — V_{CB}



I_{CBO} — Ta



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