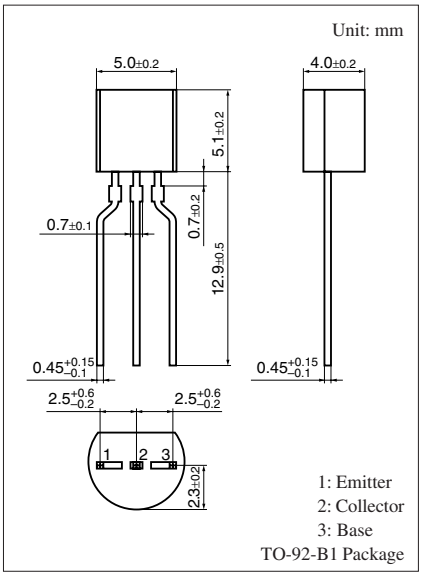
2SA0921 (2SA921)

Silicon PNP epitaxial planar type

For high breakdown voltage low-noise amplification
Complementary to 2SC1980



■ Features

- High collector-emitter voltage (Base open) V_{CEO}
- Low noise voltage NV

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	−120	V
Collector-emitter voltage (Base open)	V_{CEO}	−120	V
Emitter-base voltage (Collector open)	V_{EBO}	−5	V
Collector current	I_C	−20	mA
Peak collector current	I_{CP}	−50	mA
Collector power dissipation	P_C	250	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

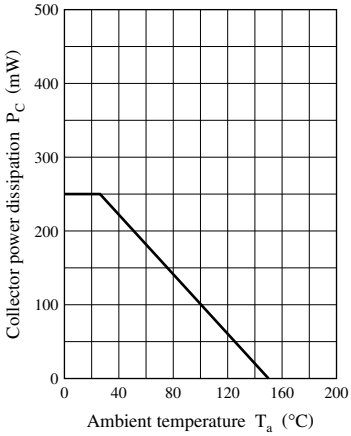
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10$ µA, $I_E = 0$	−120			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -1$ mA, $I_B = 0$	−120			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10$ µA, $I_C = 0$	−5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -50$ V, $I_E = 0$			−100	nA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -50$ V, $I_B = 0$			−1	µA
Forward current transfer ratio *	h_{FE}	$V_{CE} = -5$ V, $I_C = -2$ mA	180		700	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -20$ mA, $I_B = -2$ mA			− 0.6	V
Transition frequency	f_T	$V_{CB} = -5$ V, $I_E = 2$ mA, f = 200 MHz		200		MHz
Noise voltage	NV	$V_{CE} = -40$ V, $I_C = -1$ mA, $G_V = 80$ dB $R_g = 100$ kΩ, Function = FLAT			150	mV

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

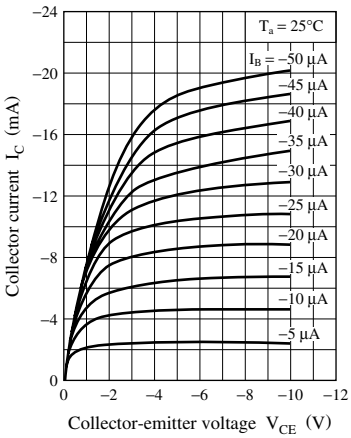
Rank	R	S	T
h_{FE}	180 to 360	260 to 520	360 to 700

Note) The part number in the parenthesis shows conventional part number.

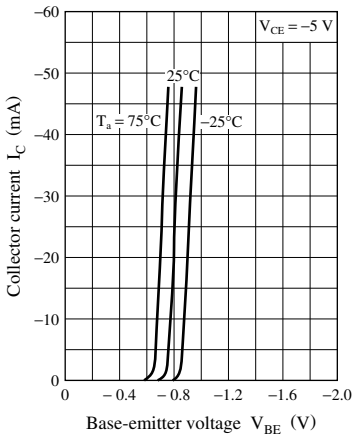
P_C — T_a



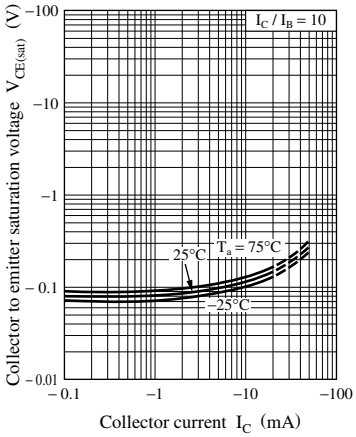
I_C — V_{CE}



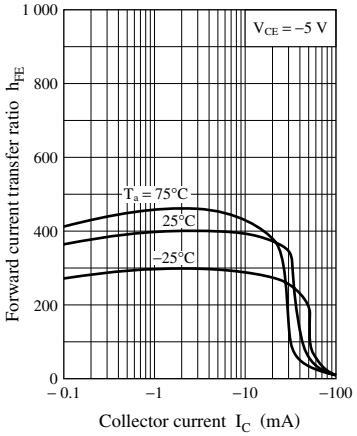
I_C — V_{BE}



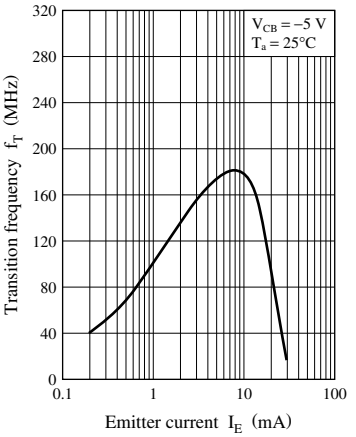
$V_{CE(sat)}$ — I_C



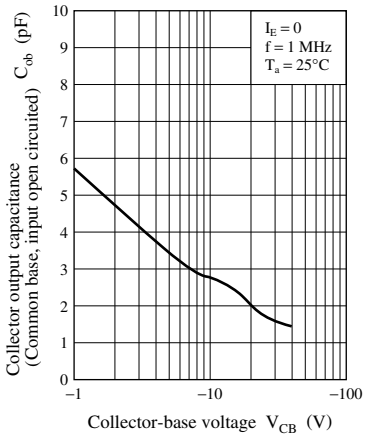
h_{FE} — I_C



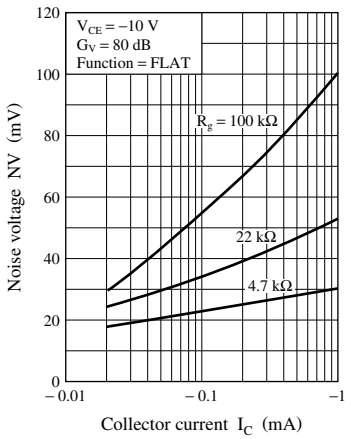
f_T — I_E



C_{ob} — V_{CB}



NV — I_C



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