

Transistor



2SA921

Silicon PNP epitaxial planer type

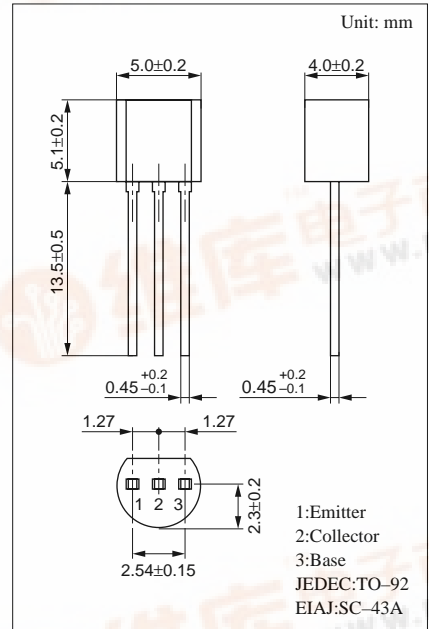
For high breakdown voltage low-noise amplification
Complementary to 2SC1980

Features

- High collector to emitter voltage V_{CEO} .
- Low noise voltage NV.

Absolute Maximum Ratings (Ta=25°C)

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



Electrical Characteristics (Ta=25°C)

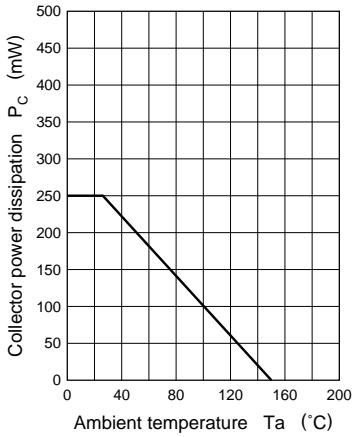
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -50V, I_E = 0$			-100	nA
	I_{CEO}	$V_{CE} = -50V, I_B = 0$			-1	μA
Collector to base voltage	V_{CBO}	$I_C = -10\mu A, I_E = 0$	-120			V
Collector to emitter voltage	V_{CEO}	$I_C = -1mA, I_B = 0$	-120			V
Emitter to base voltage	V_{EBO}	$I_E = -10\mu A, I_C = 0$	-5			V
Forward current transfer ratio	h_{FE}^*	$V_{CE} = -5V, I_C = -2mA$	180		520	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -20mA, I_B = -2mA$			-0.6	V
Transition frequency	f_T	$V_{CB} = -5V, I_E = 2mA, f = 200MHz$		200		MHz
Noise voltage	NV	$V_{CE} = -40V, I_C = -1mA, G_v = 80dB$ $R_g = 100k\Omega, \text{Function FLAT}$			150	mV

* h_{FE} Rank classification

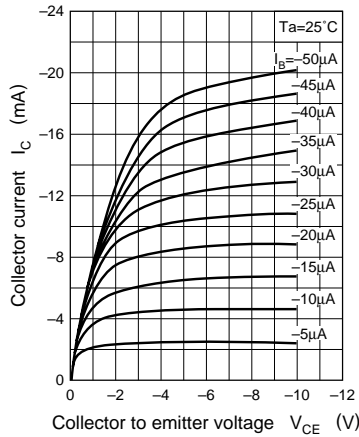
Rank	R	S
h_{FE}	180 ~ 360	260 ~ 520



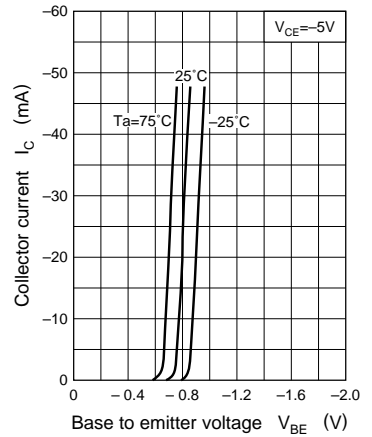
$P_C - T_a$



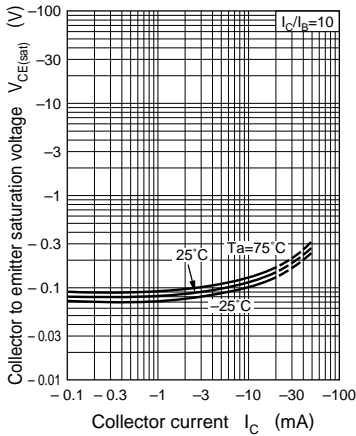
$I_C - V_{CE}$



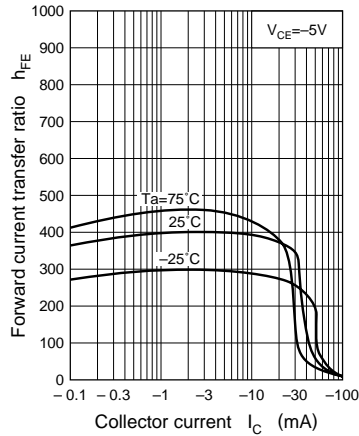
$I_C - V_{BE}$



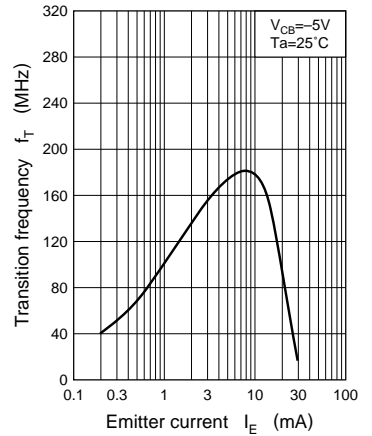
$V_{CE(sat)} - I_C$



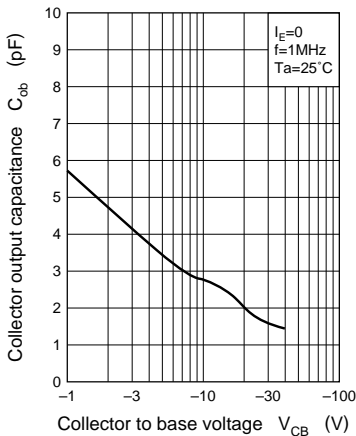
$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$



$NV - I_C$

