

2SA1961

Silicon PNP epitaxial planer type

For general amplification

Complementary to 2SC5419

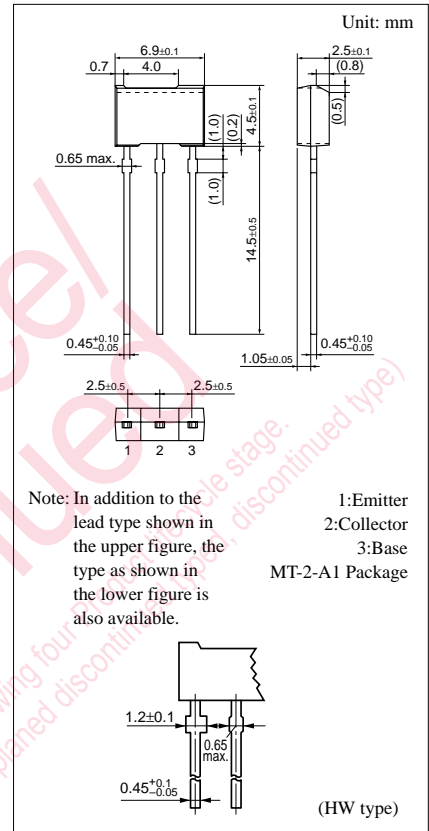
Features

- High collector to emitter voltage V_{CEO} .

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-200	V
Collector to emitter voltage	V_{CEO}	-200	V
Emitter to base voltage	V_{EBO}	-5	V
Peak collector current	I_{CP}	-0.1	A
Collector current	I_C	-70	mA
Collector power dissipation	P_C^*	1	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

* Printed circuit board: Copper foil area of 1cm^2 or more, and the board thickness of 1.7mm for the collector portion



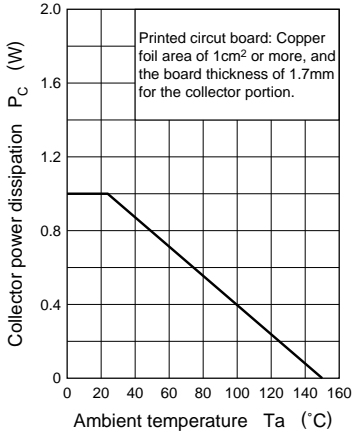
Electrical Characteristics ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to emitter voltage	V_{CEO}	$I_C = -100\mu\text{A}$, $I_B = 0$	-200			V
Emitter to base voltage	V_{EBO}	$I_E = -1\mu\text{A}$, $I_C = 0$	-5			V
Forward current transfer ratio	h_{FE}^{*1}	$V_{CE} = -10\text{V}$, $I_C = -5\text{mA}$	30		150	-
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50\text{mA}$, $I_B = -5\text{mA}$			-2.5	V
Transition frequency	f_T	$V_{CB} = -5\text{V}$, $I_E = 10\text{mA}$, $f = 200\text{MHz}$		30		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$		7		pF

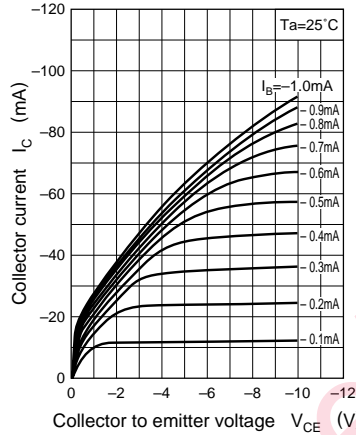
*¹ h_{FE} Rank classification

Rank	P	Q
h_{FE}	30 ~ 100	60 ~ 150

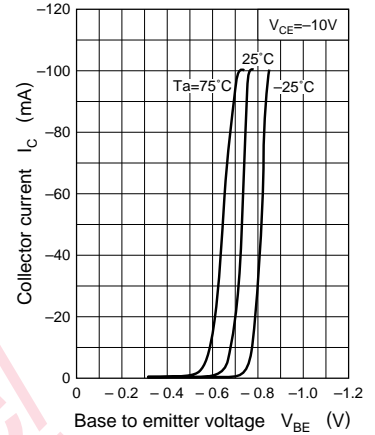
$P_C - T_a$



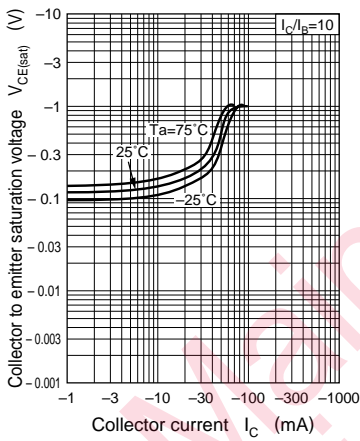
$I_C - V_{CE}$



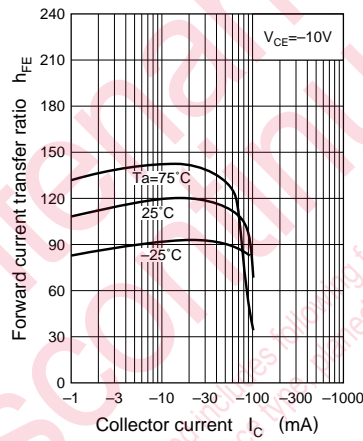
$I_C - V_{BE}$



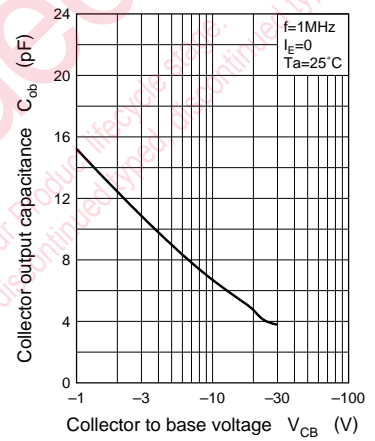
$V_{CE(sat)} - I_C$



$h_{FE} - I_C$



$C_{ob} - V_{CB}$



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