

# 2SA1961

## Silicon PNP epitaxial planer type

For general amplification

Complementary to 2SC5419

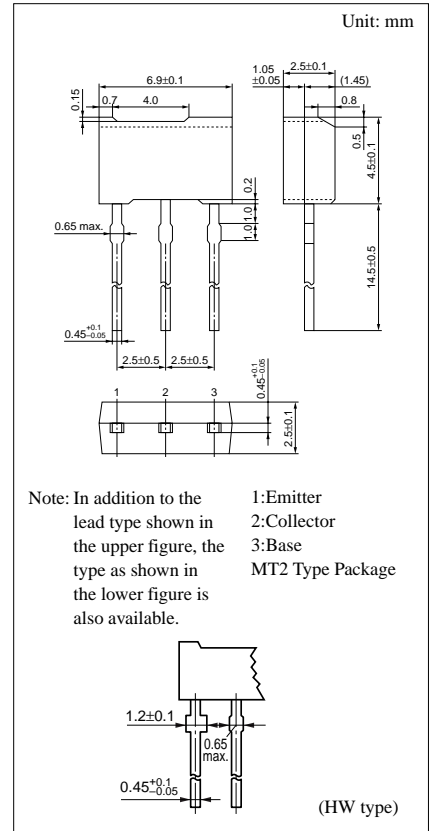
### Features

- High collector to emitter voltage  $V_{CEO}$ .

### Absolute Maximum Ratings (Ta=25°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	°C
Storage temperature	$T_{stg}$	-55 ~ +150	°C

\* Printed circuit board: Copper foil area of 1cm<sup>2</sup> or more, and the board thickness of 1.7mm for the collector portion



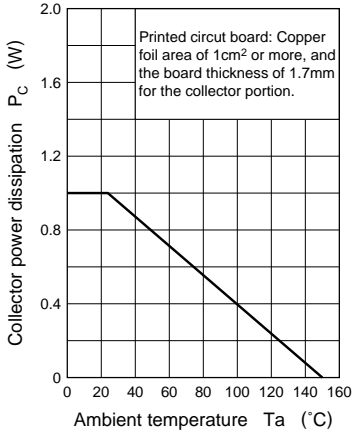
### Electrical Characteristics (Ta=25°C)

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

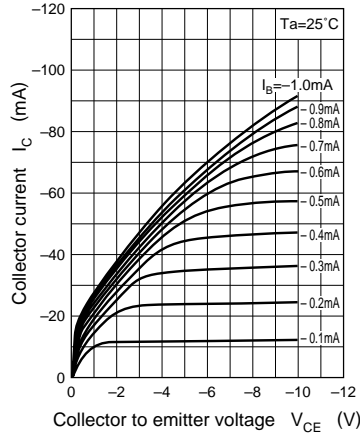
\*1  $h_{FE}$  Rank classification

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

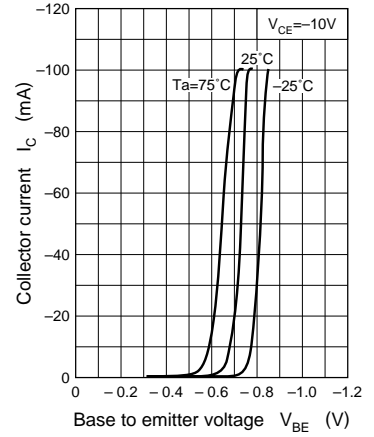
$P_C - T_a$



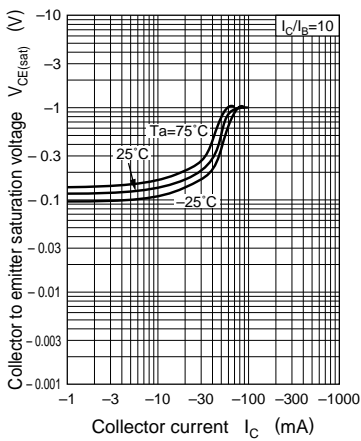
$I_C - V_{CE}$



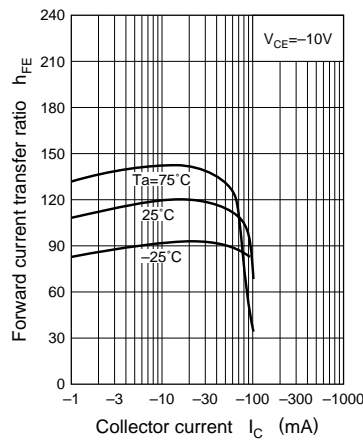
$I_C - V_{BE}$



$V_{CE(sat)} - I_C$



$h_{FE} - I_C$



$C_{ob} - V_{CB}$

