

# 2SB1322A

Silicon PNP epitaxial planer type

For low-frequency power amplification  
Complementary to 2SD1994A

## Features

- Allowing supply with the radial taping.

## Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	-60	V
Collector to emitter voltage	$V_{CEO}$	-50	V
Emitter to base voltage	$V_{EBO}$	-5	V
Peak collector current	$I_{CP}$	-1.5	A
Collector current	$I_C$	-1	A
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

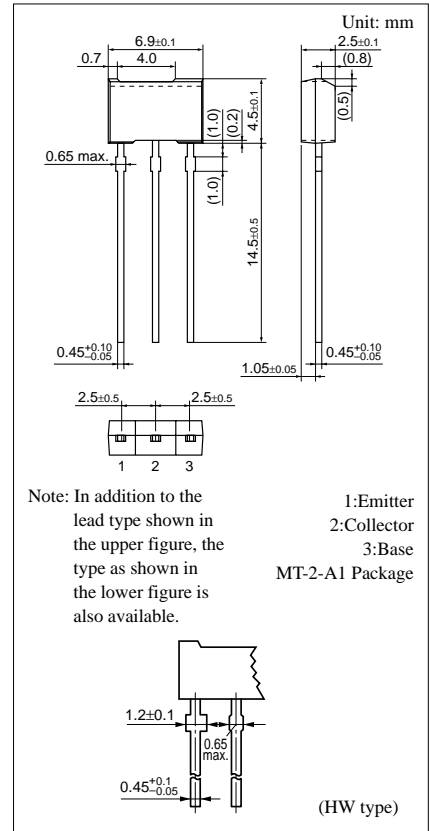
## Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -20V, I_E = 0$			-0.1	μA
Collector to base voltage	$V_{CBO}$	$I_C = -10\mu A, I_E = 0$	-60			V
Collector to emitter voltage	$V_{CEO}$	$I_C = -2mA, I_B = 0$	-50			V
Emitter to base voltage	$V_{EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Forward current transfer ratio	$h_{FE1}^{*1}$	$V_{CE} = -10V, I_C = -500mA^{*2}$	85		340	
	$h_{FE2}$	$V_{CE} = -5V, I_C = -1mA^{*2}$	50			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA^{*2}$			-0.4	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500mA, I_B = -50mA^{*2}$			-1.2	V
Transition frequency	$f_T$	$V_{CB} = -10V, I_E = 50mA, f = 200MHz$		200		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$		20	30	pF

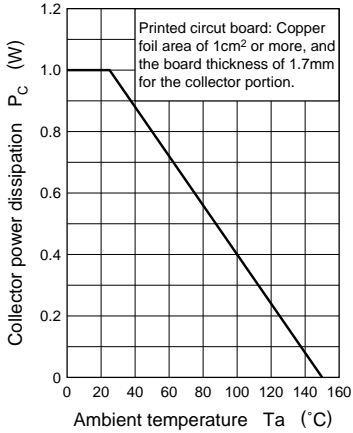
\*2 Pulse measurement

\*1  $h_{FE1}$  Rank classification

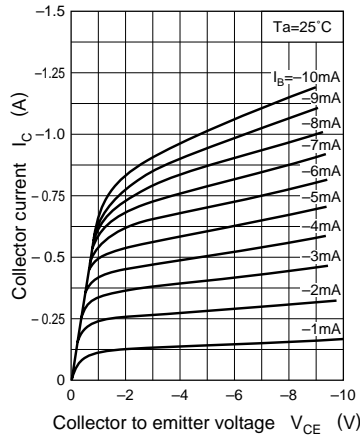
Rank	Q	R	S
$h_{FE1}$	85 ~ 170	120 ~ 240	170 ~ 340



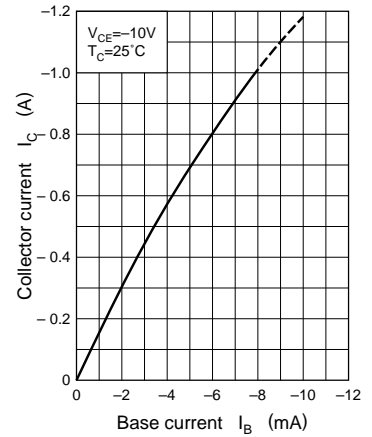
$P_C - T_a$



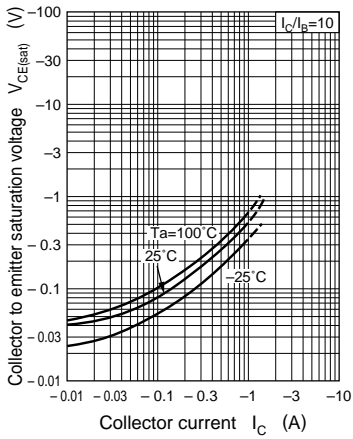
$I_C - V_{CE}$



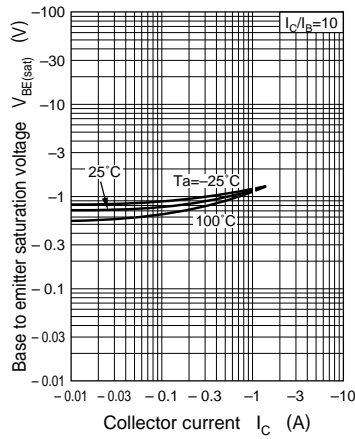
$I_C - I_B$



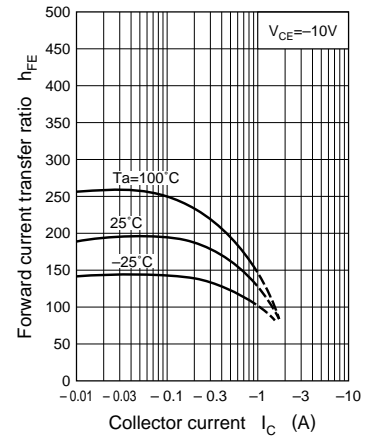
$V_{CE(sat)} - I_C$



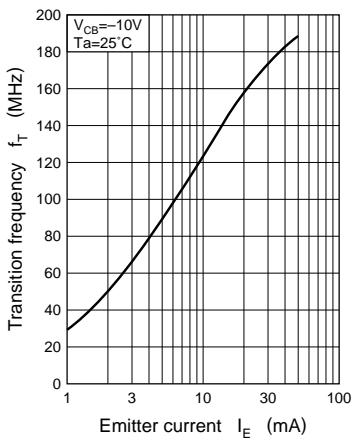
$V_{BE(sat)} - I_C$



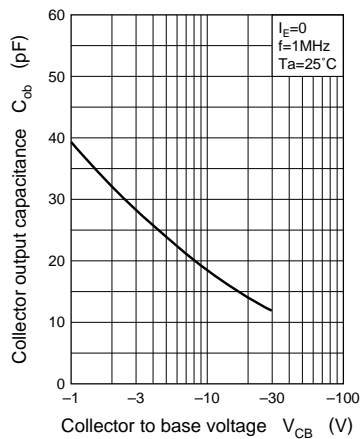
$h_{FE} - I_C$



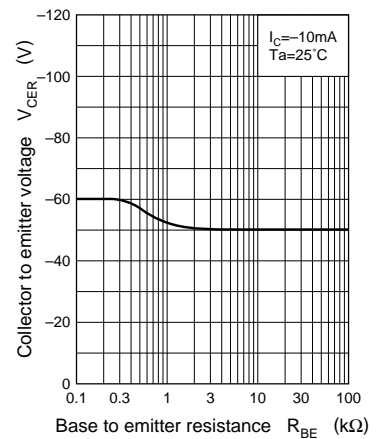
$f_T - I_E$



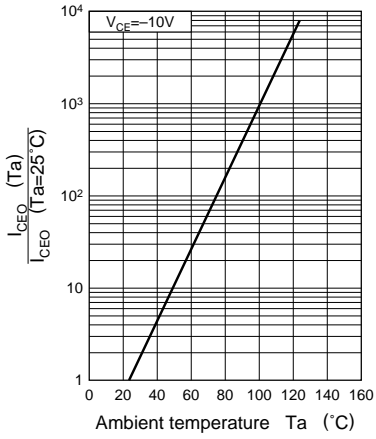
$C_{ob} - V_{CB}$



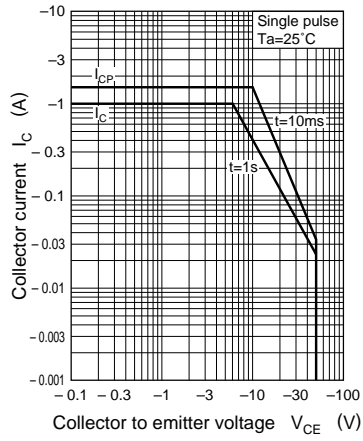
$V_{CER} - R_{BE}$



$I_{CEO} - T_a$



Area of safe operation (ASO)



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