2SB1322A

Silicon PNP epitaxial planer type

For low-frequency power amplification
Complementary to 2SD1994A

■ Features

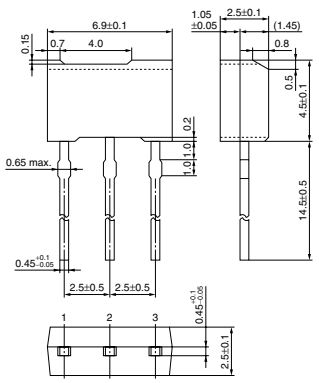
- Allowing supply with the radial taping

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	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 to +150	°C

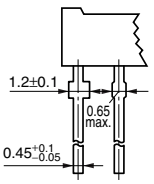
Note) ∗: Printed circuit board: Copper foil area of 1 cm^2 or more, and the board thickness of 1.7 mm for the collector portion

Unit: mm



Note) In addition to the lead type shown in the upper figure, the type as shown in the lower figure is also available.

1: Emitter
2: Collector
3: Base
MT2 Type Package



(HW Type)

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

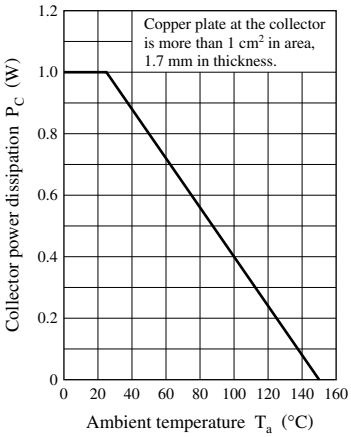
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -20$ V, $I_E = 0$			− 0.1	μA
Collector to base voltage	V_{CBO}	$I_C = -10$ μA, $I_E = 0$	−60			V
Collector to emitter voltage	V_{CEO}	$I_C = -2$ mA, $I_B = 0$	−50			V
Emitter to base voltage	V_{EBO}	$I_E = -10$ μA,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

Note) ∗1: Pulse measurement
∗2: Rank classification

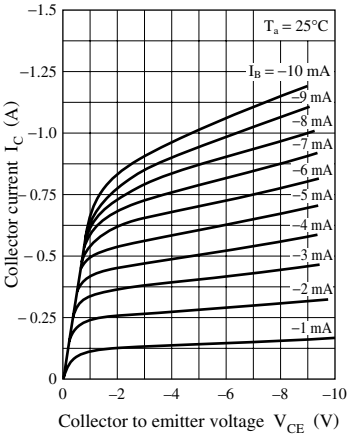
Rank	Q	R	S	No-rank
h_{FE1}	85 to 170	120 to 240	170 to 340	85 to 340

Product of no-rank is not classified and have no indication for rank.

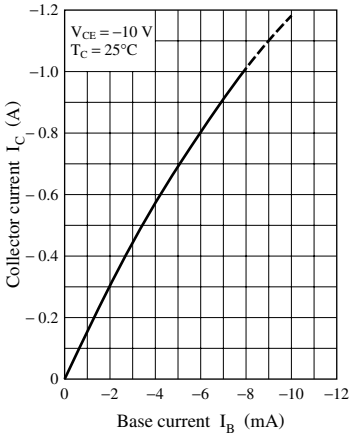
P_C — T_a



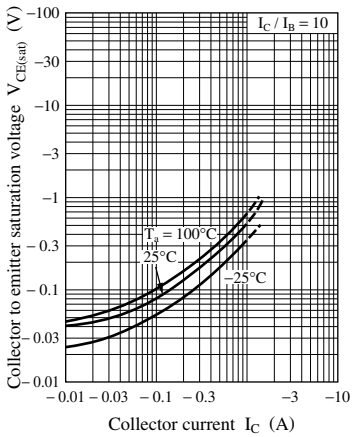
I_C — V_{CE}



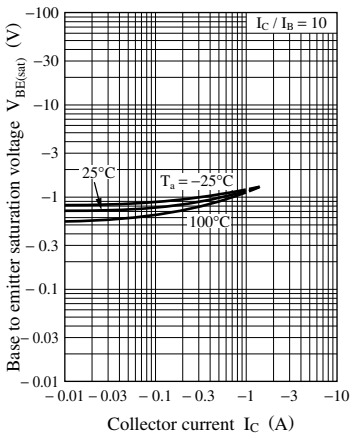
I_C — I_B



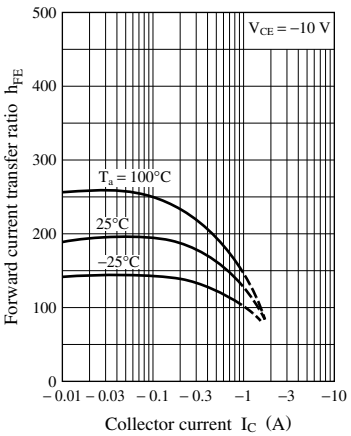
$V_{CE(sat)}$ — I_C



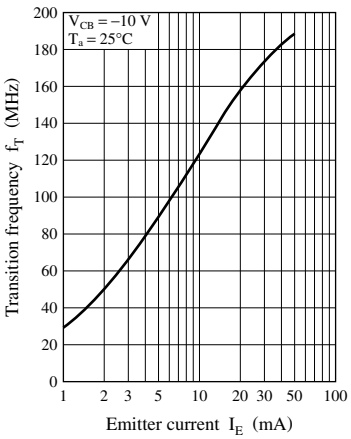
$V_{BE(sat)}$ — I_C



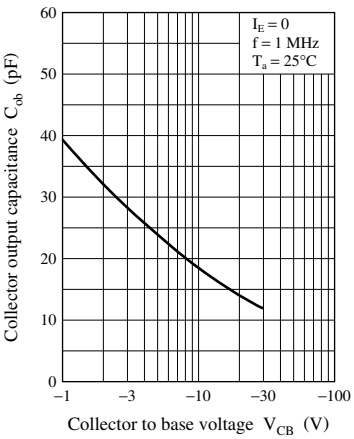
h_{FE} — I_C



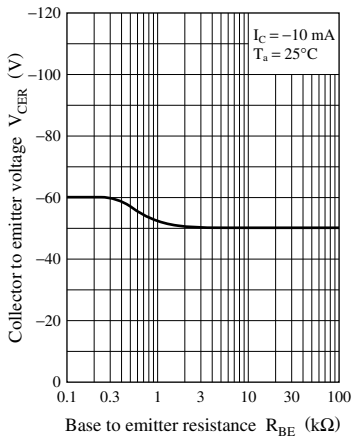
f_T — I_E



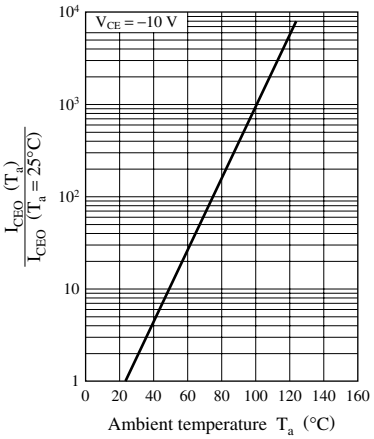
C_{ob} — V_{CB}



V_{CER} — R_{BE}



I_{CEO} — T_a



Area of safe operation (ASO)