

# 2SB1434

## Silicon PNP epitaxial planer type

For low-frequency output amplification  
Complementary to 2SD2177

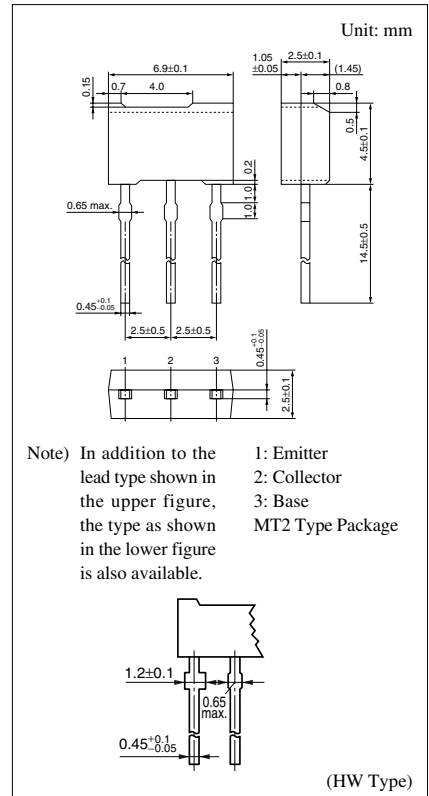
### ■ Features

- Low collector to emitter saturation voltage  $V_{CE(sat)}$
- Allowing supply with the radial taping

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	-50	V
Collector to emitter voltage	$V_{CEO}$	-50	V
Emitter to base voltage	$V_{EBO}$	-5	V
Peak collector current	$I_{CP}$	-3	A
Collector current	$I_C$	-2	A
Collector power dissipation *	$P_C$	1	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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



### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

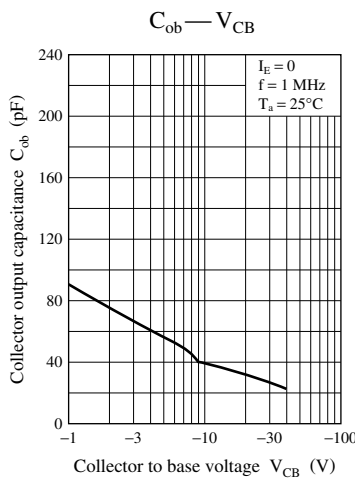
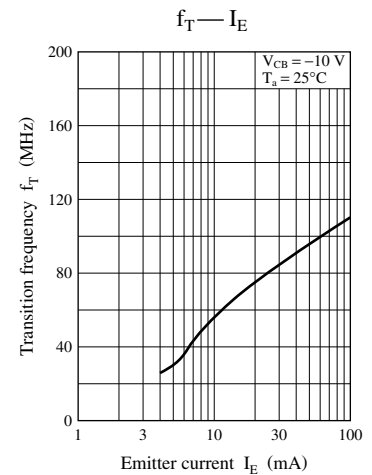
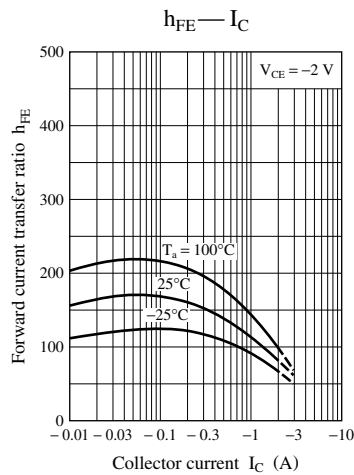
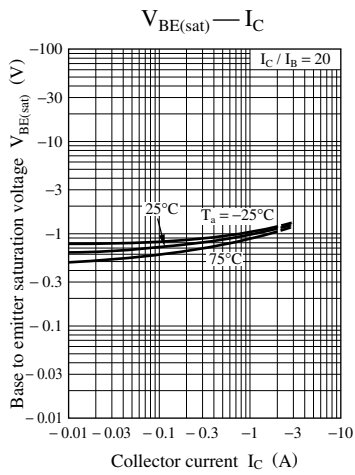
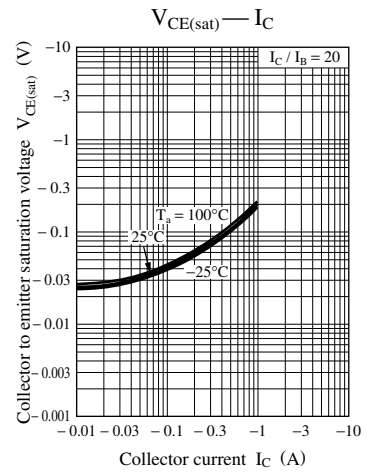
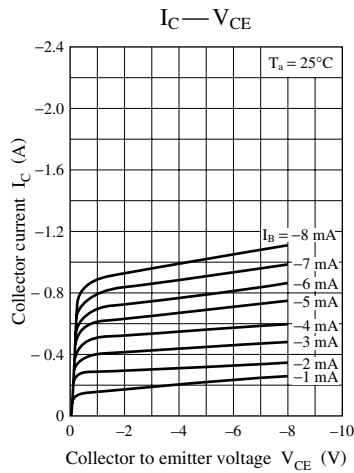
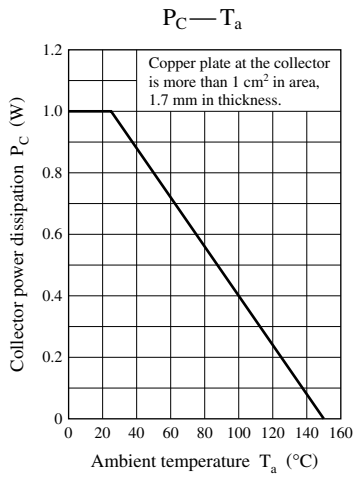
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -20\text{ V}, I_E = 0$			-0.1	$\mu\text{A}$
Collector to base voltage	$V_{CBO}$	$I_C = -10\ \mu\text{A}, I_E = 0$	-50			V
Collector to emitter voltage	$V_{CEO}$	$I_C = -1\ \text{mA}, I_B = 0$	-50			V
Emitter to base voltage	$V_{EBO}$	$I_E = -10\ \mu\text{A}, I_C = 0$	-5			V
Forward current transfer ratio *1	$h_{FE1}$ *2	$V_{CE} = -2\ \text{V}, I_C = -200\ \text{mA}$	120		340	
	$h_{FE2}$	$V_{CE} = -2\ \text{V}, I_C = -1\ \text{A}$	60			
Collector to emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = -1\ \text{A}, I_B = -50\ \text{mA}$		-0.2	-0.3	V
Base to emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = -1\ \text{A}, I_B = -50\ \text{mA}$		-0.85	-1.2	V
Transition frequency	$f_T$	$V_{CB} = -10\ \text{V}, I_E = 50\ \text{mA}, f = 200\ \text{MHz}$		110		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\ \text{V}, I_E = 0, f = 1\ \text{MHz}$		40	60	pF

Note) \*1: Pulse measurement

\*2: Rank classification

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

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



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