

2SB1434

Silicon PNP epitaxial planer type

For low-frequency output amplification

Complementary to 2SD2177

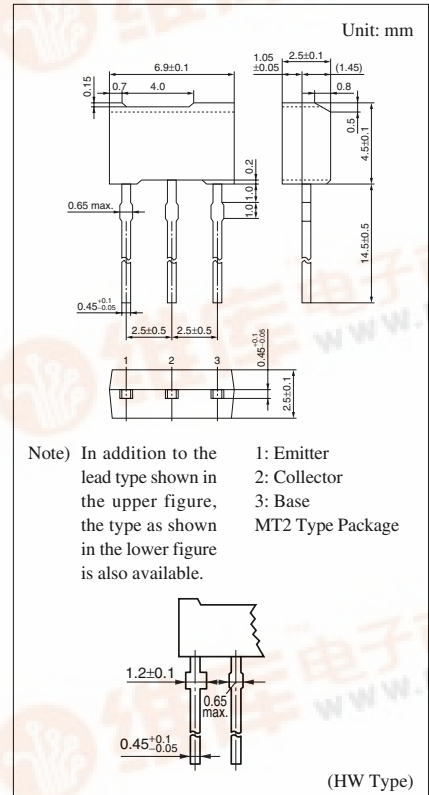
■ Features

- 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 cm² 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	μA
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

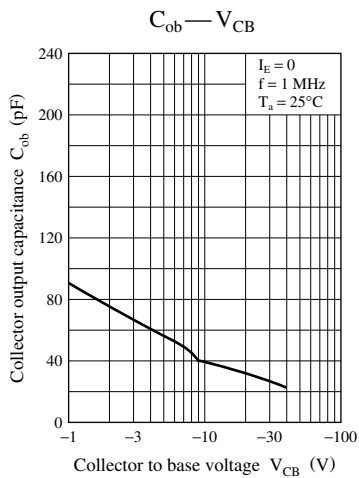
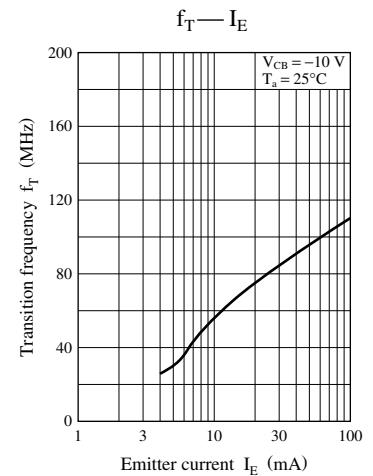
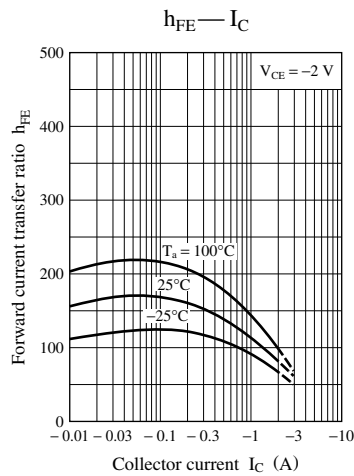
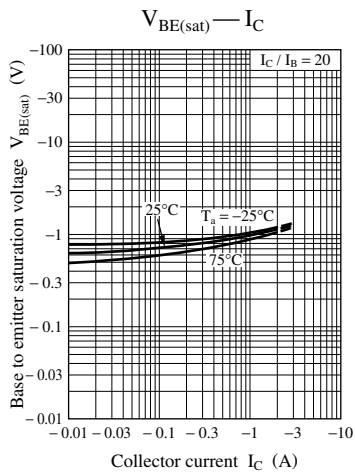
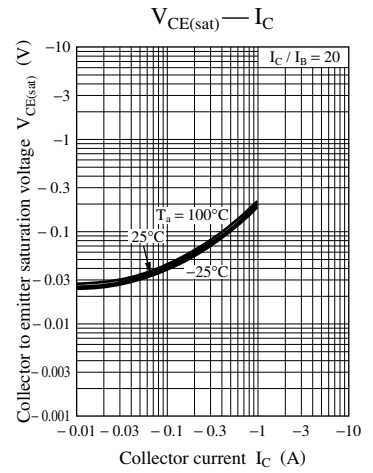
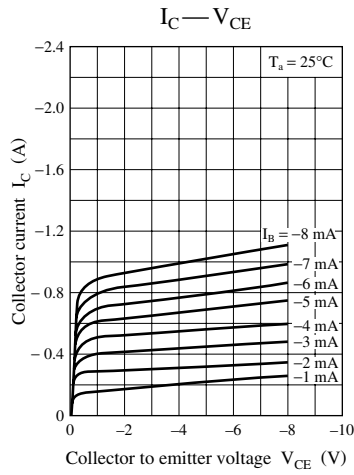
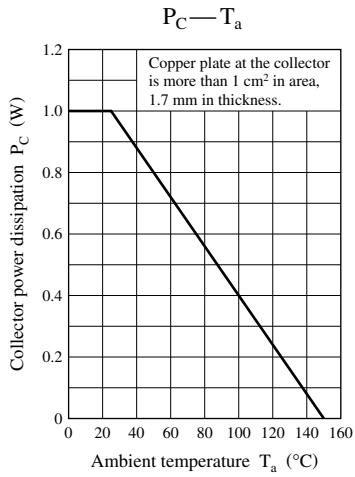
Note) *1: Pulse measurement

*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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