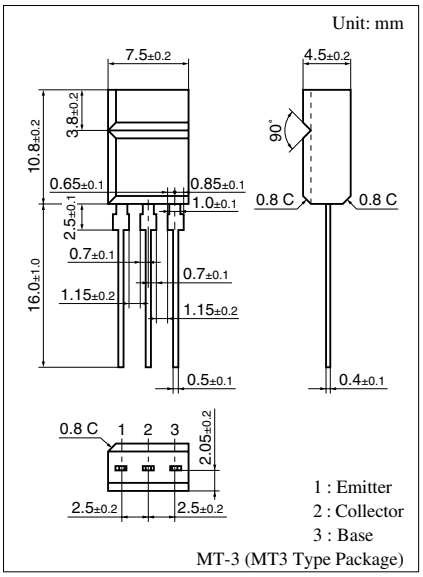
2SB1435

Silicon PNP epitaxial planar type

For low-frequency output amplification



■ Features

- Low collector to emitter saturation voltage $V_{CE(sat)}$
- Large collector current I_C
- Allowing automatic insertion with radial taping

■ Absolute Maximum Ratings $T_C = 25°C$

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	1.5	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

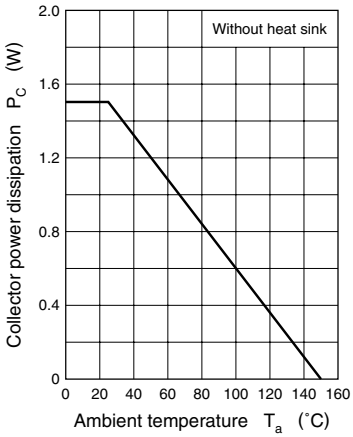
■ Electrical Characteristics $T_C = 25°C$

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	−50			V
Collector to emitter voltage	V_{CEO}	I_C = −1 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	h_{FE1} *	V_{CE} = −2 V, I_C = −200 mA	120		340	
	h_{FE2}	V_{CE} = −2 V, I_C = −1 A	60			
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = −1 A, I_B = −50 mA		− 0.2	− 0.3	V
Base to emitter saturation voltage	$V_{BE(sat)}$	I_C = −1 A, I_B = −50 mA		− 0.85	−1.2	V
Transition frequency	f_T	V_{CB} = −10 V, I_E = 50 mA, f = 200 MHz		80		MHz
Collector output capacitance	C_{ob}	V_{CB} = −10 V, I_E = 0, f = 1 MHz		45	60	pF

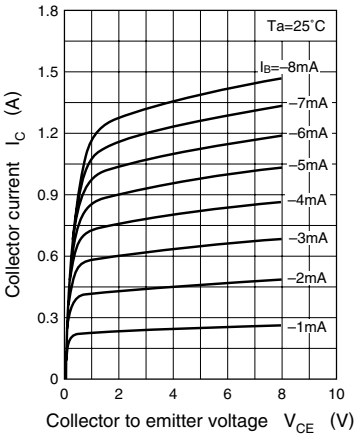
Note) ∗: Rank classification

Rank	R	S
h_{FE1}	120 to 240	170 to 340

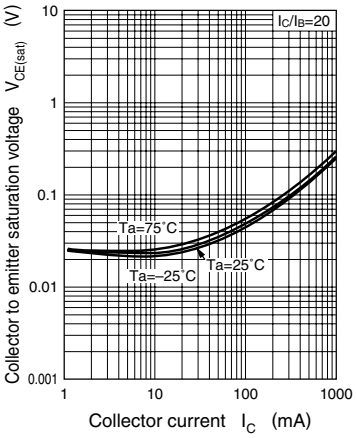
P_C — T_a



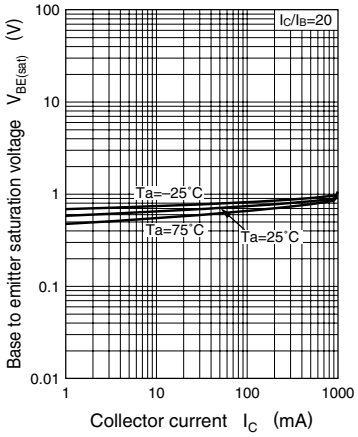
I_C — V_{CE}



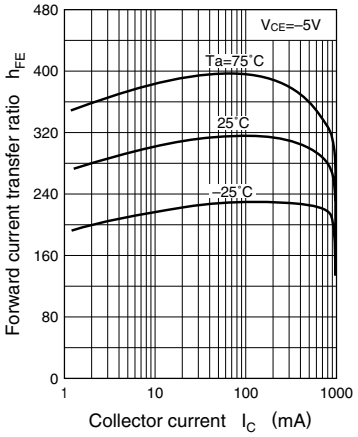
$V_{CE(sat)}$ — I_C



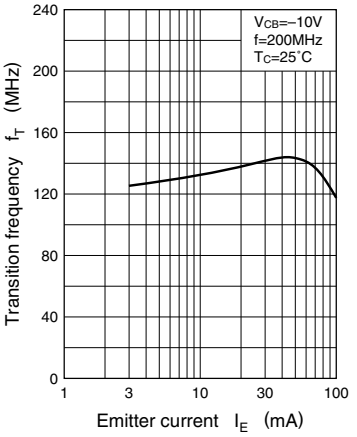
$V_{BE(sat)}$ — I_C



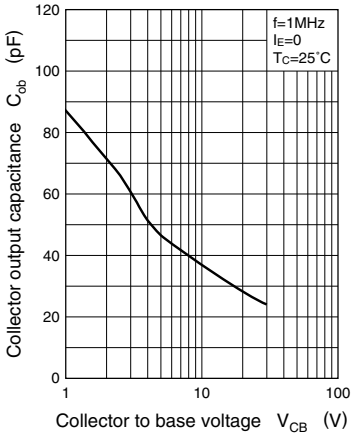
h_{FE} — I_C



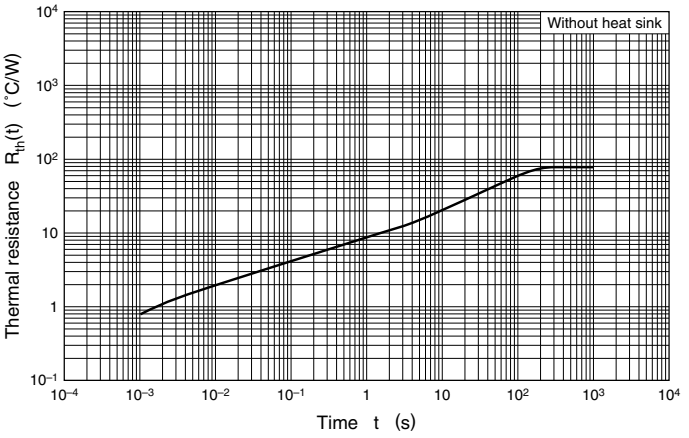
f_T — I_E



C_{ob} — V_{CB}



$R_{th(t)}$ — t



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