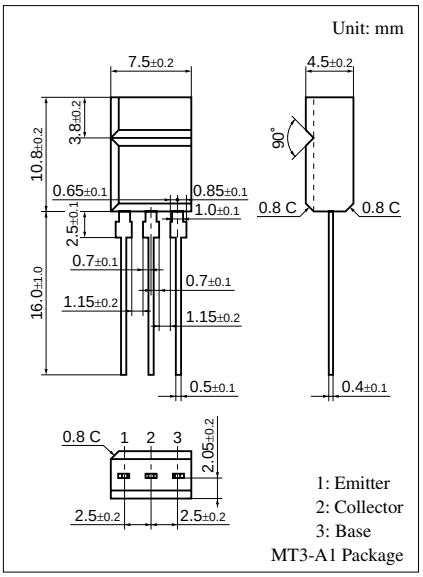
2SD2134

Silicon NPN epitaxial planar type

For low-frequency driver/high power amplification



■ Features

- Excellent current I_C characteristics of forward current transfer ratio h_{FE} vs. collector
- High transition frequency f_T
- Optimum for the driver of 60 W to 100 W output amplifier on complementary to 2SB1414

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	150	V
Collector to emitter voltage	V_{CEO}	150	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	1	A
Peak collector current	I_{CP}	1.5	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 $T_a = 25°C \pm 3°C$

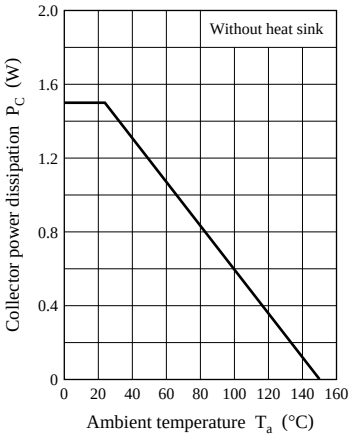
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector to emitter voltage	V_{CEO}	I_C = 100 μA, I_B = 0	150			V
Emitter to base voltage	V_{EBO}	I_E = 10 μA, I_C = 0	5			V
Forward current transfer ratio	h_{FE1} *2	V_{CE} = 10 V, I_C = 150 mA	90		220	
	h_{FE2}	V_{CE} = 5 V, I_C = 500 mA	50			
Collector to emitter saturation voltage *1	$V_{CE(sat)}$	I_C = 500 mA, I_B = 50 mA		0.5	2.0	V
Base to emitter saturation voltage *1	$V_{BE(sat)}$	I_C = 500 mA, I_B = 50 mA		1.0	2.0	V
Gain bandwidth product *1	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		pF

Note) ∗1: Pulse measurement

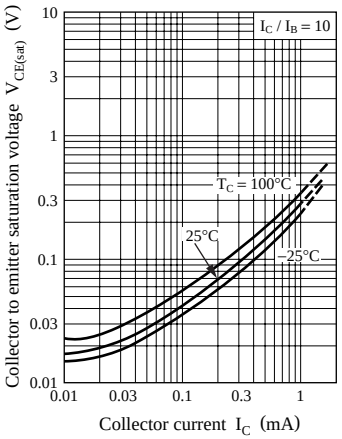
∗2: h_{FE} Rank classification

Rank	P	Q
h_{FE1}	90 to 155	130 to 220

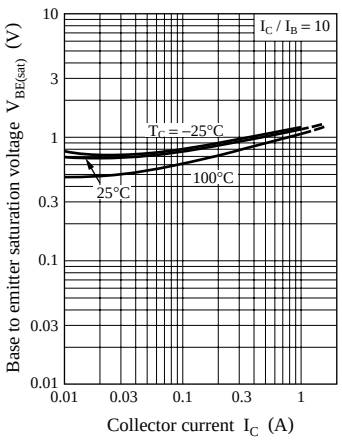
P_C — T_a



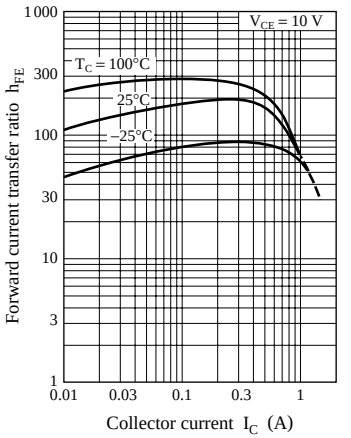
$V_{CE(sat)}$ — I_C



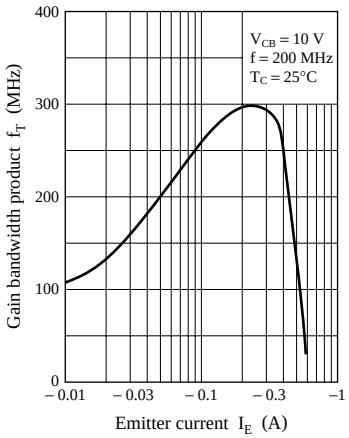
$V_{CE(sat)}$ — I_C



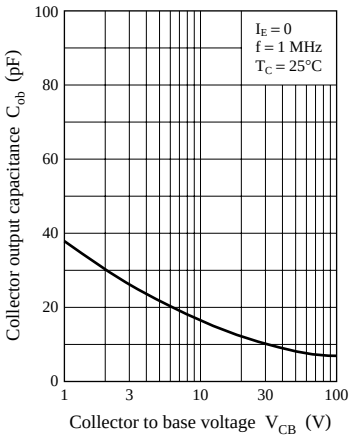
h_{FE} — I_C



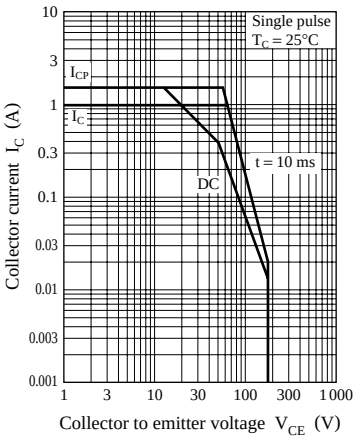
f_T — I_E



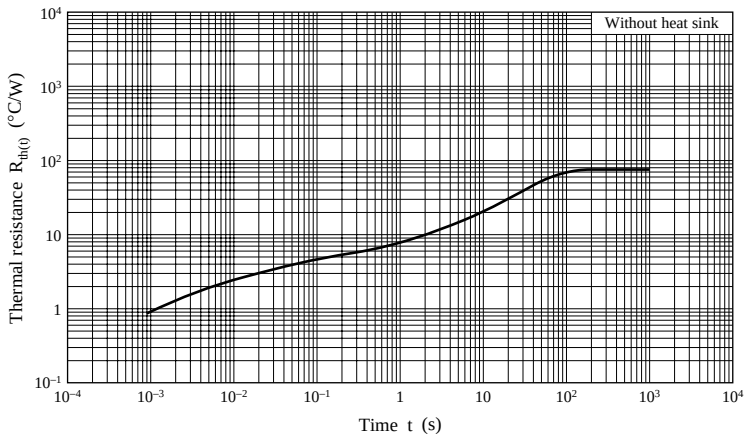
C_{ob} — V_{CB}



Area of safe operation (ASO)



$R_{th(t)}$ — t



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