

2SD2134

Silicon NPN epitaxial planar type

For low-frequency driver , high power amplification

Complementary to 2SB1414

■ Features

- Excellent collector current I_C characteristics of forward current transfer ratio h_{FE}
- High transition frequency f_T
- A complementary pair with 2SB1414, is optimum for the driver-stage of a 60 W to 100 W output amplifier.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	150	V
Collector-emitter voltage (Base open)	V_{CEO}	150	V
Emitter-base voltage (Collector open)	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	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

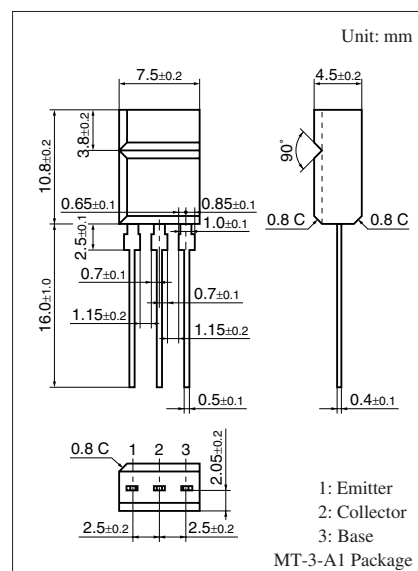
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

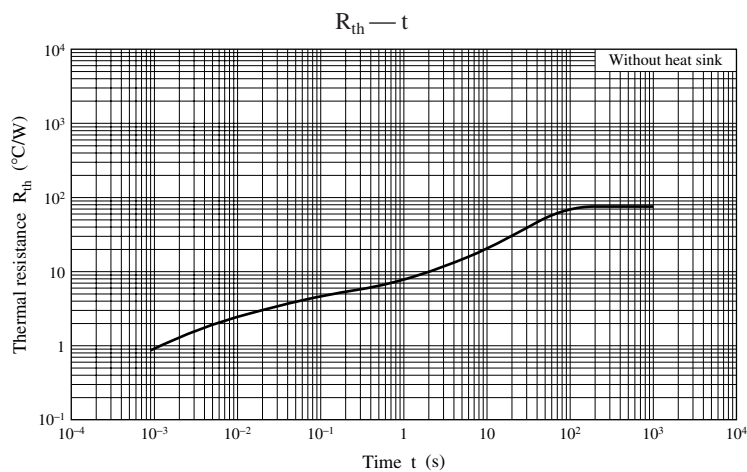
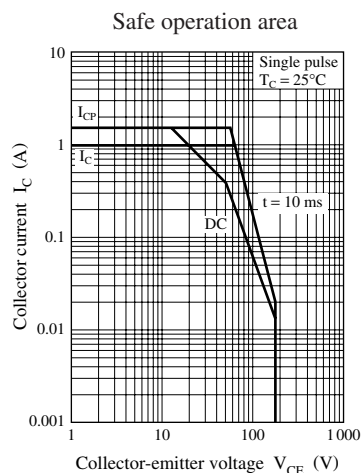
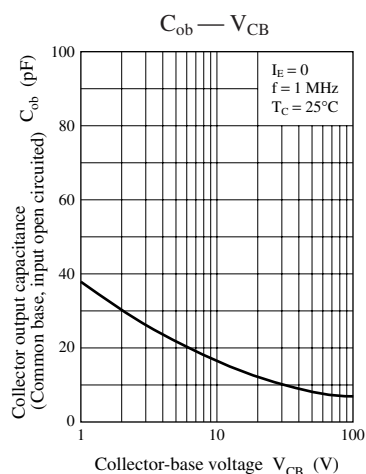
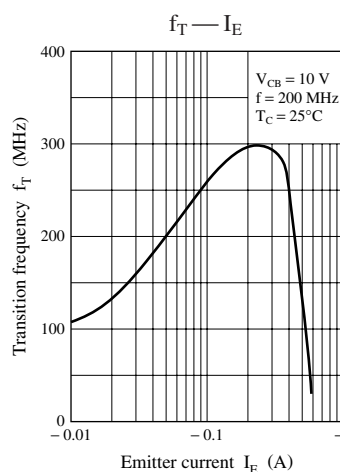
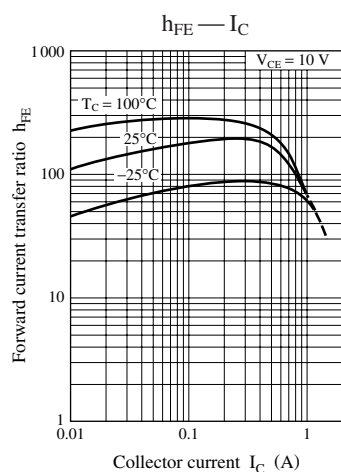
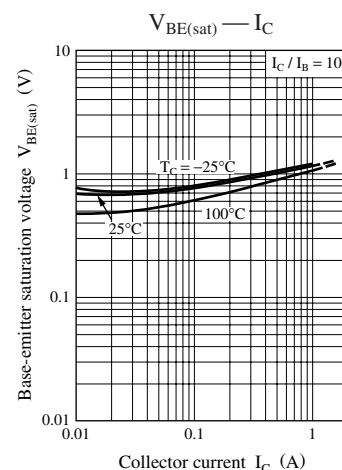
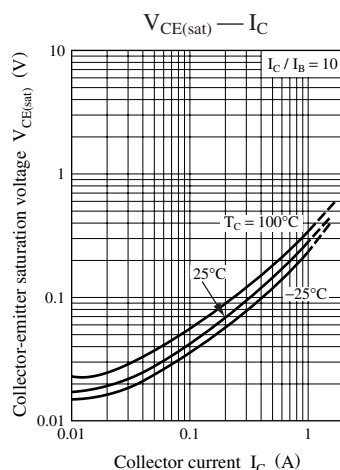
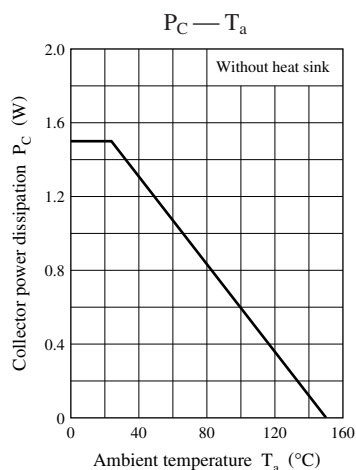
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 100\ \mu\text{A}$, $I_B = 0$	150			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 10\ \mu\text{A}$, $I_C = 0$	5			V
Forward current transfer ratio	h_{FE1}^*	$V_{CE} = 10\ \text{V}$, $I_C = 150\ \text{mA}$	90		220	—
	h_{FE2}	$V_{CE} = 5\ \text{V}$, $I_C = 500\ \text{mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\ \text{mA}$, $I_B = 50\ \text{mA}$		0.5	2.0	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500\ \text{mA}$, $I_B = 50\ \text{mA}$		1.0	2.0	V
Transition frequency	f_T	$V_{CB} = 10\ \text{V}$, $I_E = -50\ \text{mA}$, $f = 200\ \text{MHz}$		200		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = 10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$		20		pF

(Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Rank classification

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





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