2SB1414

Silicon PNP epitaxial planar type

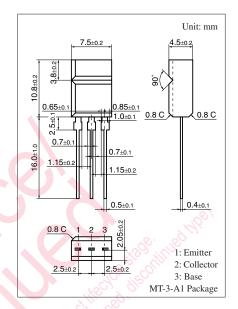
For low-frequency driver/high power amplification Complementary to 2SD2134

■ Features

- \bullet Excellent current I_C characteristics of forward current transfer ratio $h_{FE}\ vs.\ collector$
- High transition frequency f_T
- Allowing automatic insertion with radial taping

■ Absolute Maximum Ratings $T_a = 25$ °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	°C	
Storage temperature	T_{stg}	-55 to +150	°C	



■ Electrical Characteristics $T_a = 25$ °C ± 3 °C

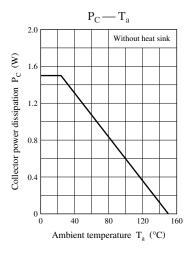
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -100 \mu\text{A}, I_B = 0$	-150			V
Emiter-base voltage (Collector open)	V _{EBO}	$I_E = -10 \mu\text{A}, I_C = 0$	-5			V
Forward current transfer ratio *1	h _{FE1} *2	$V_{CE} = -10 \text{ V}, I_{C} = -150 \text{ mA}$	90		330	_
	h _{FE2}	$V_{CE} = -5 \text{ V}, I_{C} = -500 \text{ mA}$	50			
Collector-emitter saturation voltage *1	V _{CE(sat)}	$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$		- 0.5	-2.0	V
Base-emitter saturation voltage *1	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}	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		30		pF

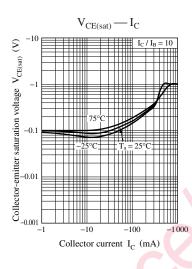
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

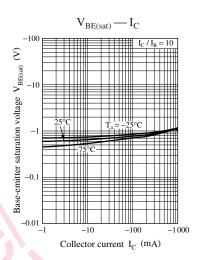
2. *1: Pulse measurement

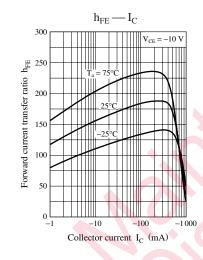
*2: Rank classification

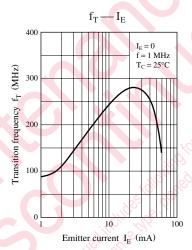
Rank	Q	R	S
h _{FE1}	90 to 155	130 to 220	185 to 330

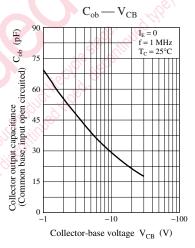


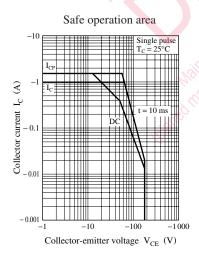


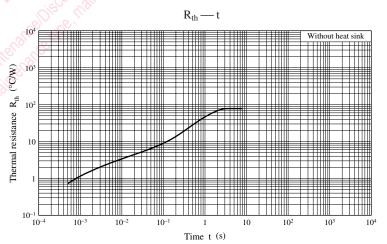












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