2SB1209

Silicon PNP triple diffusion planar type

For low-frequency amplification

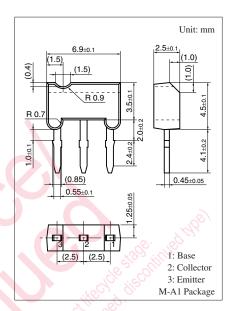
■ Features

- ullet High collector-base voltage (Emitter open) V_{CBO}
- ullet High collector-emitter voltage (Base open) V_{CEO}
- \bullet Low collector-emitter saturation voltage $V_{\text{CE}(\text{sat})}$

■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V _{CBO}	V _{CBO} -400		
Collector-emitter voltage (Base open)	V _{CEO}	-400	V	
Emitter-base voltage (Collector open)	V_{EBO}	-5	V	
Collector current	I_C	-100	mA	
Peak collector current	I_{CP}	-200	mA	
Collector power dissipation *	P _C	1	W	
Junction temperature	T _j	150	°C	
Storage temperature	T_{stg}	-55 to +150	°C	

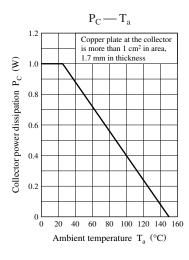
Note) *: Print circuit board: Copper foil area of 1 cm² or more, and the board thickness of 1.7 mm for the collector portion

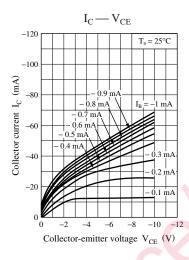


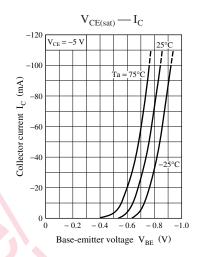
■ Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

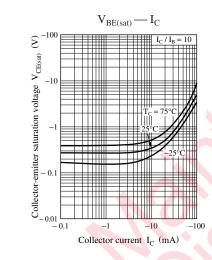
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -100 \mu\text{A}, I_E = 0$	-400			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_{\rm C} = -500 \mu\text{A}, I_{\rm B} = 0$	-400			V
Emitter-base voltage (Collector open)	V _{EBO}	$I_E = -100 \mu\text{A}, I_C = 0$	-5			V
Forward current transfer ratio	h _{FE}	$V_{CE} = -5 \text{ V}, I_{C} = -30 \text{ mA}$	40			_
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = -10 \text{ mA}, I_B = -1 \text{ mA}$			- 0.6	V
Base-emitter saturation voltage	V _{BE(sat)}	$I_C = -50 \text{ mA}, I_B = -5 \text{ mA}$			-1.5	V
Transition frequency	f_T	$V_{CB} = -30 \text{ V}, I_E = 20 \text{ mA}, f = 200 \text{ MHz}$		50		MHz
Collector output capacitance	C _{ob}	$V_{CB} = -30 \text{ V}, I_E = 0, f = 1 \text{ MHz}$			9	pF
(Common base, input open circuited)						

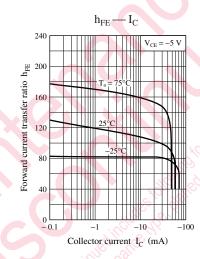
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

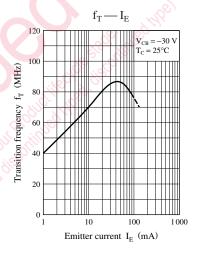


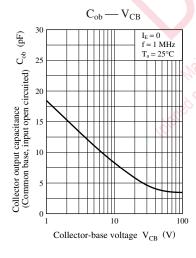


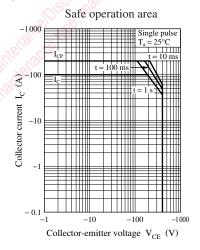












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