2SD1211

Silicon NPN epitaxial planar type

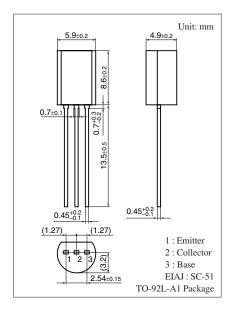
For low-frequency amplification

■ Features

- \bullet High collector-emitter voltage (Base open) V_{CEO}
- Optimum for the driver-stage of a low-frequency and 40 W to 60 W output amplifier.

■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V _{CBO}	120	V	
Collector-emitter voltage (Base open)	V _{CEO}	120	V	
Emitter-base voltage (Collector open)	V_{EBO}	5	V	
Collector current	I_{C}	0.5	A	
Peak collector current	I_{CP}	1	A	
Collector power dissipation	P _C	1	W	
Junction temperature	T_{j}	150	°C	
Storage temperature	T _{stg}	-55 to +150	°C	



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

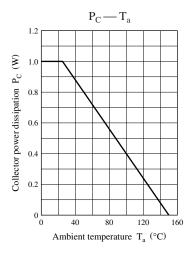
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = 0.1 \text{ mA}, I_B = 0$	120			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 10 \ \mu A, I_C = 0$	5			V
Forward current transfer ratio *1	h _{FE1} *2	$V_{CE} = 10 \text{ V}, I_{C} = 150 \text{ mA}$	130		330	_
	h _{FE}	$V_{CE} = 5 \text{ V}, I_{C} = 500 \text{ mA}$	50			
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = 300 \text{ mA}, I_B = 30 \text{ mA}$			1	V
Base-emitter saturation voltage	V _{BE(sat)}	$I_C = 300 \text{ A}, I_B = 30 \text{ mA}$			1.2	V
Transition frequency	f_T	$V_{CB} = 10 \text{ V}, I_E = -50 \text{ mA}, f = 200 \text{ MHz}$		200		MHz
Collector output capacitance	C _{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$			20	pF
(Common base, input open circuited)						

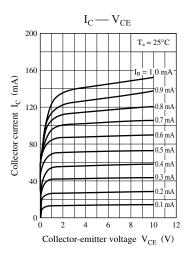
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

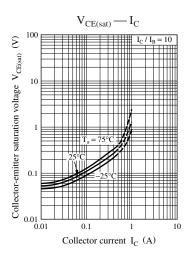
2. *1: Pulse measurement

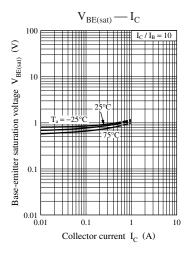
*2: Rank classification

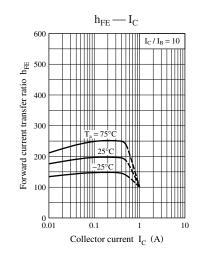
Rank	R	S
h_{FE1}	130 to 220	185 to 330

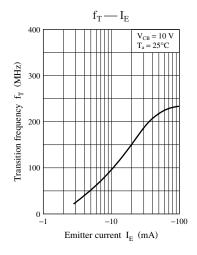


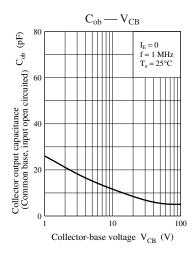


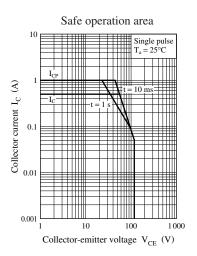












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