2SC4809J

Silicon NPN epitaxial planar type

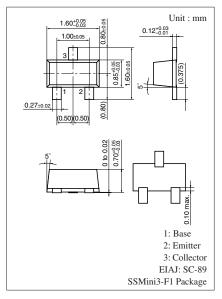
For high-frequency amplification/oscillation/mixing

■ Features

- High transition frequency f_T
- ullet Small collector output capacitance (Common base, input open circuited) C_{ob} and reverse transfer capacitance (Common emitter) C_{rb}
- SS-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing

■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V _{CBO}	15	V	
Collector-emitter voltage (Base open)	V _{CEO}	10	V	
Emitter-base voltage (Collector open)	V _{EBO}	3	V	
Collector current	I_C	50	mA	
Collector power dissipation	P _C	125	mW	
Junction temperature	T_j	125	°C	
Storage temperature	T_{stg}	-55 to +125	°C	



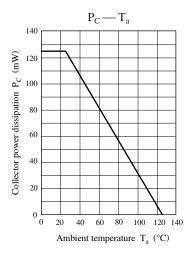
Marking Symbol: 1S

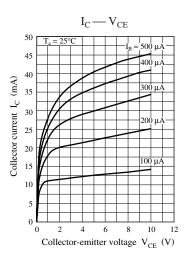
■ Electrical Characteristics $T_a = 25$ °C ± 3 °C

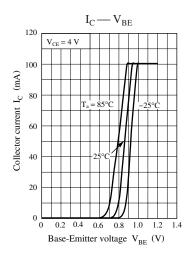
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = 2 \text{ mA}, I_B = 0$	10			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 10 \mu\text{A}, I_C = 0$	3			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 10 \text{ V}, I_{E} = 0$			1	μΑ
Forward current transfer ratio	h _{FE}	$V_{CE} = 4 \text{ V}, I_{C} = 5 \text{ mA}$	75		400	_
h _{FE} ratio *	Δh_{FE}	h_{FE2} : $V_{CE} = 4 \text{ V}$, $I_{C} = 100 \mu\text{A}$	0.75		1.6	_
		h_{FE1} : $V_{CE} = 4 \text{ V}$, $I_{C} = 5 \text{ mA}$				
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = 20 \text{ mA}, I_B = 4 \text{ mA}$			0.5	V
Transition frequency	f_T	$V_{CB} = 4 \text{ V}, I_E = -5 \text{ mA}, f = 200 \text{ MHz}$	1.4	1.9	2.7	GHz
Collector output capacitance	C _{ob}	$V_{CB} = 4 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		1.4		pF
(Common base, input open circuited)						
Reverse transfer capacitance (Common emitter)	C _{rb}	$V_{CB} = 4 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$		0.45		pF
Collector-base parameter	r _{bb} ' • C _C	$V_{CB} = 4 \text{ V}, I_{E} = -5 \text{ mA}, f = 31.9 \text{ MHz}$		11		ps

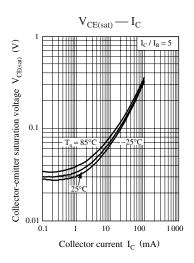
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

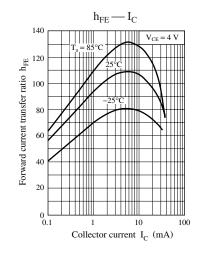
^{2. * :} $\Delta h_{FE} = h_{FE2} / h_{FE1}$

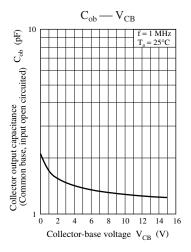












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