2SC3934G

Silicon NPN epitaxial planar type

For high-frequency wide-band low-noise amplification

■ Features

- ullet High transition frequency f_T
- S-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V_{CBO}	15	V	
Collector-emitter voltage (Base open)	V_{CEO}	12	V	
Emitter-base voltage (Collector open)	V _{EBO}	2.5	V	
Collector current	I_{C}	30	mA	
Peak collector current	I_{CP}	50	mA	
Collector power dissipation	P _C	150	mW	
Junction temperature	T _j	150	°C	
Storage temperature	T _{stg}	-55 to +150	°C	

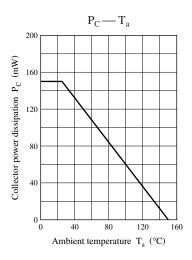
Package

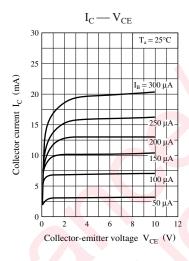
- Code SMini3-F2
- Marking Symbol: 1U
- Pin Name
 - 1. Base
 - 2. Emitter
 - 3. Collector

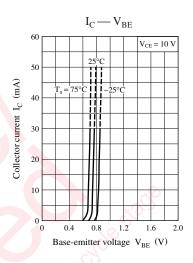
■ Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

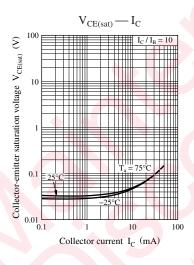
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 10 \text{ V}, I_{E} = 0$	100	250	100	nA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 2 \text{ V}, I_C = 0$	- W		1	μΑ
Forward current transfer ratio	h_{FE}	$V_{CE} = 10 \text{ V}, I_{C} = 10 \text{ mA}$	40			
Transition frequency	f_T	$V_{CE} = 10 \text{ V}, I_{C} = 10 \text{ mA}, f = 0.8 \text{ GHz}$		4.5		GHz
Collector output capacitance (Common base, input open circuited)	C _{ob}	$V_{CB} = 10 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$			1.2	pF
Forward transfer gain	S _{21e} 2	$V_{CE} = 10 \text{ V}, I_{C} = 20 \text{ mA}, f = 0.8 \text{ GHz}$	9	12		dB
Maximum unilateral power gain	G_{UM}	$V_{CE} = 10 \text{ V}, I_{C} = 20 \text{ mA}, f = 0.8 \text{ GHz}$	12	14		dB
Noise figure	NF	$V_{CE} = 10 \text{ V}, I_{C} = 5 \text{ mA}, f = 0.8 \text{ GHz}$		1.3	2.5	dB

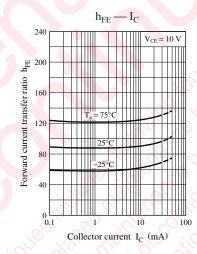
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

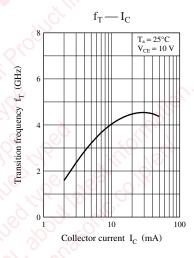


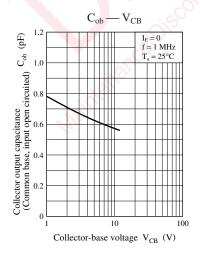


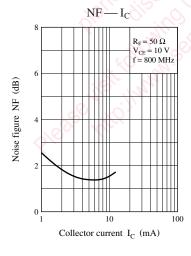


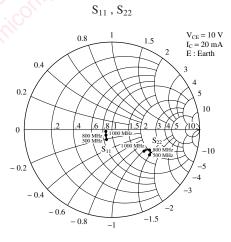




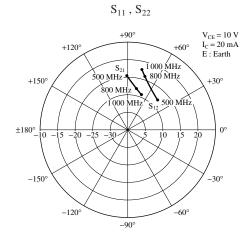


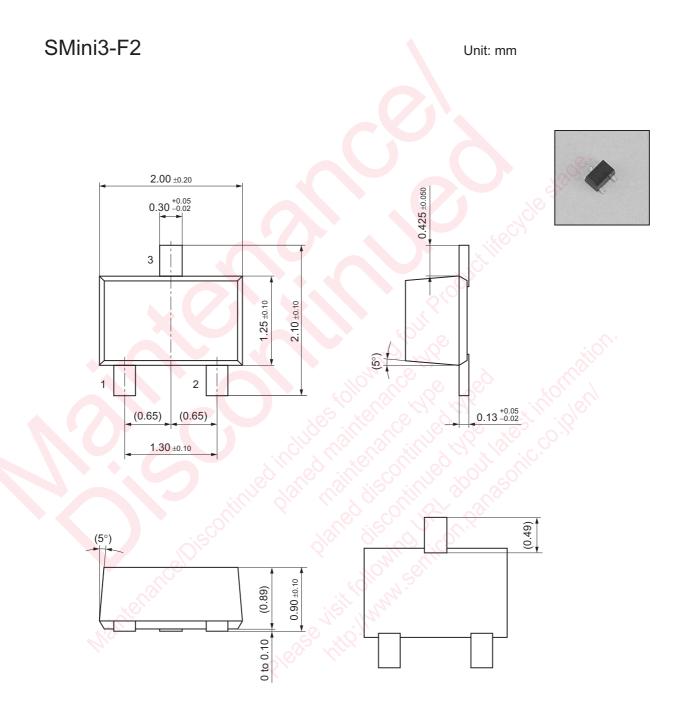






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