

2SC5946

Silicon NPN epitaxial planar type

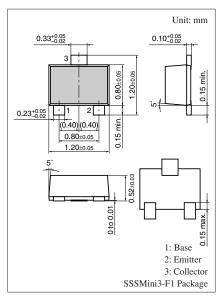
For high-frequency amplification/oscillation/mixing

■ Features

- High transition frequency f_T
- SSS-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}	30	V	
Collector-emitter voltage (Base open)	V _{CEO}	20	V	
Emitter-base voltage (Collector open)	V_{EBO}	3	V	
Collector current	I_C	50	mA	
Collector power dissipation	P _C	100	mW	
Junction temperature	T_{j}	125	°C	
Storage temperature	T _{stg}	-55 to +125	°C	



Marking Symbol: 9N

\blacksquare 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}	$I_C = 100 \mu\text{A}, I_E = 0$	30			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 10 \ \mu A, I_C = 0$	3			V
Base-emitter voltage	V_{BE}	$V_{CB} = 10 \text{ V}, I_{E} = -2 \text{ mA}$		720		mV
Forward current transfer ratio	h_{FE}	$V_{CB} = 10 \text{ V}, I_{E} = -2 \text{ mA}$	25		250	_
Transition frequency *	f_T	$V_{CB} = 10 \text{ V}, I_E = -15 \text{ mA}, f = 200 \text{ MHz}$	800		1 600	MHz
Reverse transfer capacitance (Common base)	C _{rb}	$V_{CE} = 6 \text{ V}, I_{C} = 0, f = 1 \text{ MHz}$		0.8		pF
Reverse transfer capacitance (Common emitter)	C _{re}	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 10.7 \text{ MHz}$		1.0	1.5	pF
Power gain	PG	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 200 \text{ MHz}$		20		dB

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

2. *: Pulse measurement

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