

2SC3930

Silicon NPN epitaxial planar type

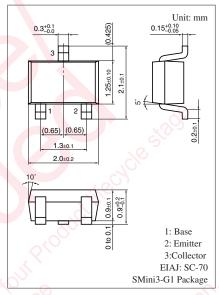
For high-frequency amplification Complementary to 2SA1532

■ Features

- Optimum for RF amplification of FM/AM radios
- High transition frequency f_T
- S-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing

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

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}	5	V	
Collector current	I_{C}	30	mA	
Collector power dissipation	P_{C}	150	mW	
Junction temperature	T _j	150	°C	
Storage temperature	T _{stg}	-55 to +150	°C	



Marking Symbol: V

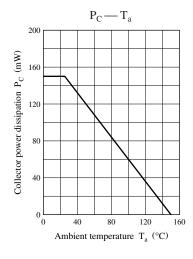
■ Electrical Characteristics T_a = 25°C ± 3°C

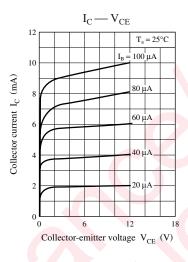
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 10 \text{ V}, I_E = 0$	2	95	0.1	μΑ
Forward current transfer ratio *	h_{FE}	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}$	70		220	_
Transition frequency	f_T	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 200 \text{ MHz}$	150	250		MHz
Noise figure	NF	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 5 \text{ MHz}$		2.8	4.0	dB
Reverse transfer impedance	Z_{rb}	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 2 \text{ MHz}$		22	50	Ω
Reverse transfer capacitance	C _{re}	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 10.7 \text{ MHz}$		0.9	1.5	pF
(Common emitter)		The His				

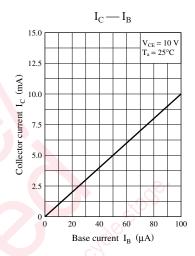
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

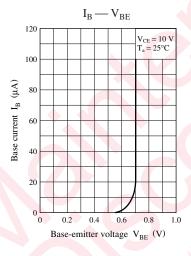
2. *: Rank classification

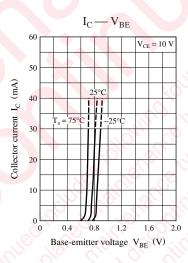
Rank	В	C	
h_{FE}	70 to 140	110 to 220	

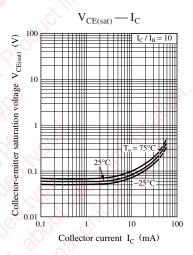


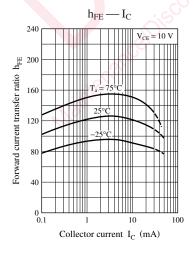


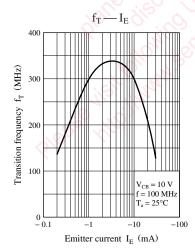


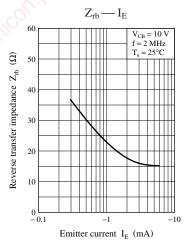




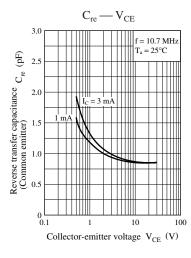


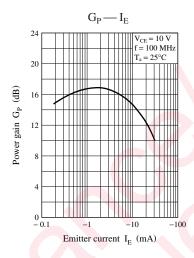


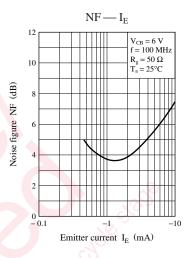


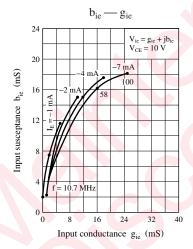


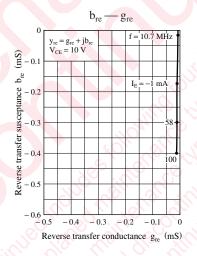
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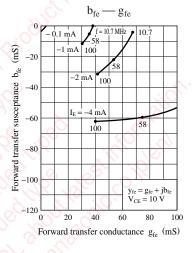


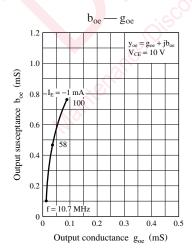












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