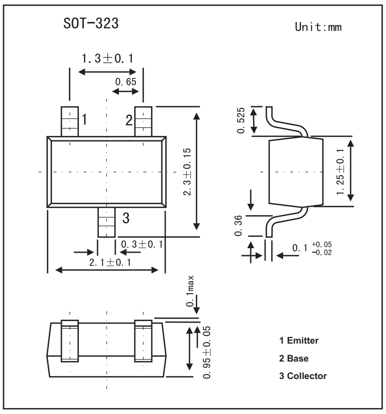
Silicon NPN Epitaxial Planar

2SC3930

Features

- Optimum for RF amplification of FM/AM radios.
- High transition frequency f_T.



Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	30	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base cutoff current	I_{CBO}	V_{CB} = 10 V, I_E = 0			0.1	μA
Forward current transfer ratio	h_{FE}	V_{CB} = 10 V, I_E = -1 mA	70		220	
Transition frequency	f_T	V_{CB} = 10 V, I_E = -1 mA, f = 200 MHz	150	250		MHz
Noise figure	Nf	V_{CB} = 10 V, I_E = -1 mA, f = 5 MHz		2.8	4.0	dB
Reverse transfer impedance	Zrb	V_{CB} = 10 V, I_E = -1 mA, f = 2 MHz		22	50	Ω
Reverse transfer capacitance	Cre	V_{CB} = 10 V, I_E = -1 mA, f = 10.7 MHz		0.9	1.5	pF

h_{FE} Classification

Marking	VB	VC
h_{FE}	70～140	110～220