

2SC3932

Silicon NPN epitaxial planer type

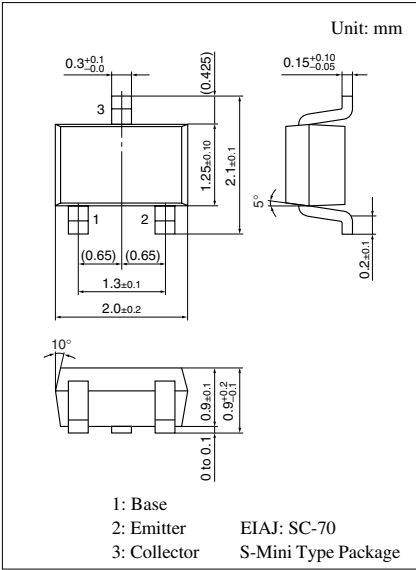
For high-frequency amplification / oscillation / mixing

■ Features

- 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 $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	30	V
Collector to emitter voltage	V_{CEO}	20	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



Marking Symbol: R

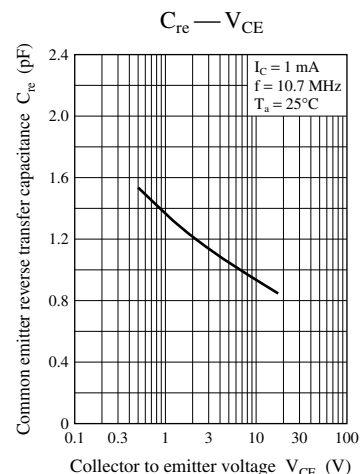
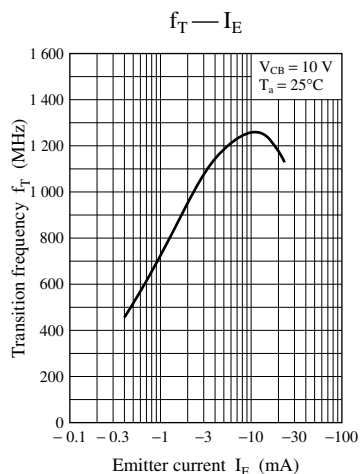
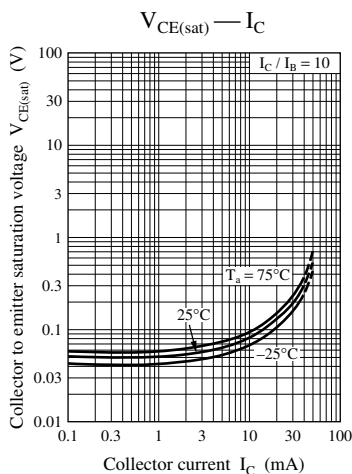
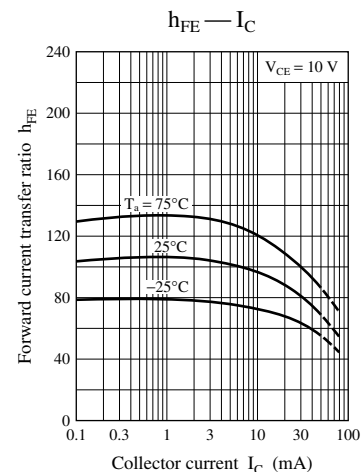
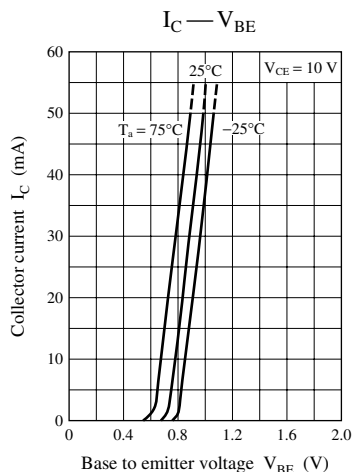
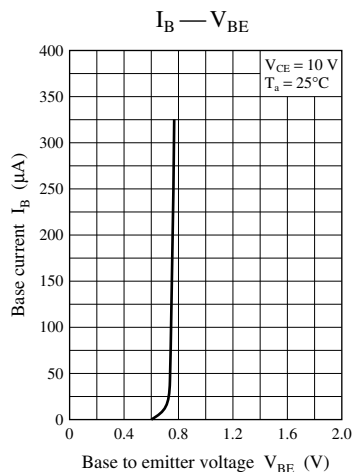
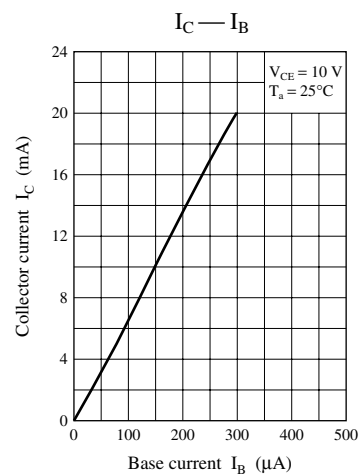
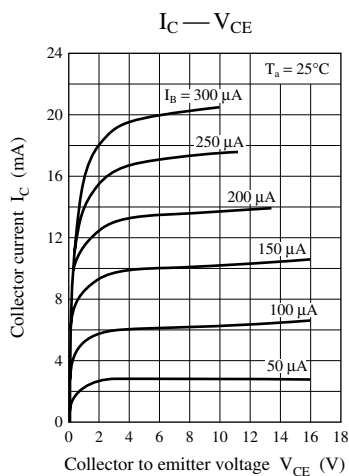
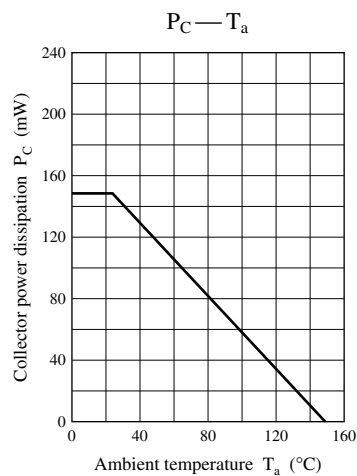
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

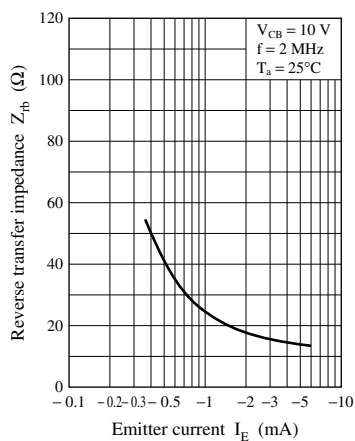
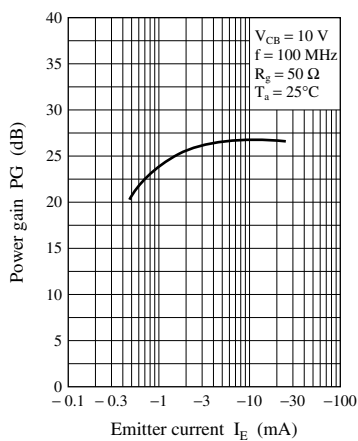
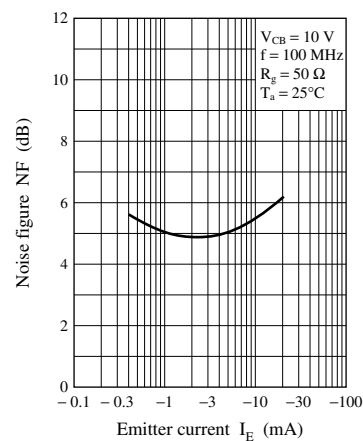
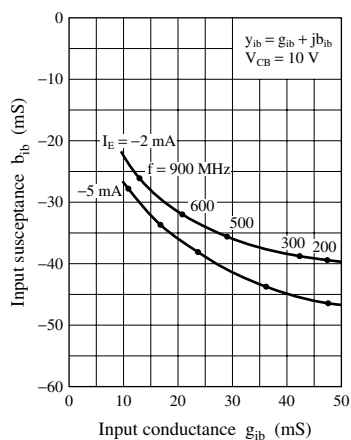
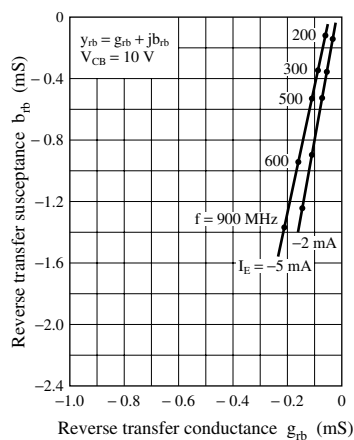
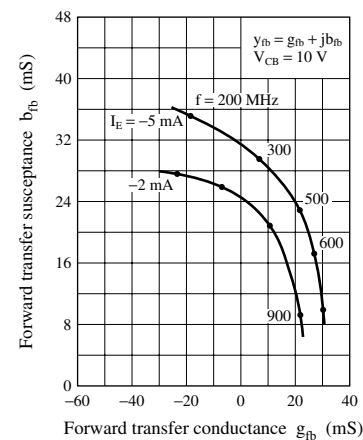
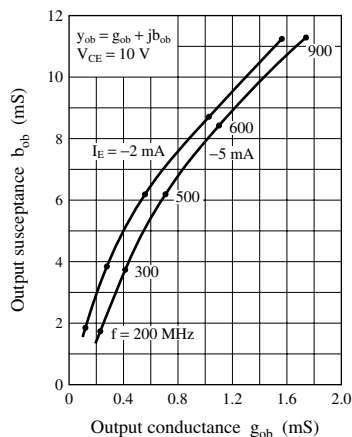
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector to base voltage	V_{CBO}	$I_C = 100 \mu\text{A}$, $I_E = 0$	30			V
Emitter to base voltage	V_{EBO}	$I_E = 10 \mu\text{A}$, $I_C = 0$	3			V
Forward current transfer ratio	h_{FE}	$V_{CB} = 10 \text{ V}$, $I_E = -2 \text{ mA}$	25		250	
Base to emitter voltage	V_{BE}	$V_{CB} = 10 \text{ V}$, $I_E = -2 \text{ mA}$		720		mV
Transition frequency *	f_T	$V_{CB} = 10 \text{ V}$, $I_E = -15 \text{ mA}$, $f = 200 \text{ MHz}$	800		1 600	MHz
Common emitter reverse transfer capacitance	C_{re}	$V_{CB} = 10 \text{ V}$, $I_E = -1 \text{ mA}$, $f = 10.7 \text{ MHz}$		1	1.5	pF
	C_{rb}	$V_{CE} = 6 \text{ V}$, $I_C = 0$, $f = 1 \text{ MHz}$		0.8		pF
Power gain	PG	$V_{CB} = 10 \text{ V}$, $I_E = -1 \text{ mA}$, $f = 200 \text{ MHz}$		20		dB

Note) *: Rank classification

Rank	T	S	No-rank
f_T (MHz)	800 to 1 400	1 000 to 1 600	800 to 1 600
Marking symbol	RT	RS	R

Product of no-rank is not classified and have no indication for rank.



$Z_{rb} - I_E$  $PG - I_E$  $NF - I_E$  $b_{ib} - g_{ib}$  $b_{rb} - g_{rb}$  $b_{fb} - g_{fb}$  $b_{ob} - g_{ob}$ 

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