

2SC3932

Silicon NPN epitaxial planer type

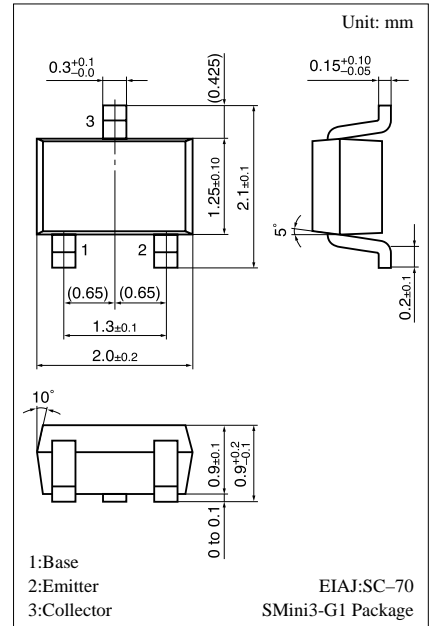
For high-frequency amplification/oscillation/mixing

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	Ratings	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 ~ +150	$^\circ\text{C}$



Marking symbol : R

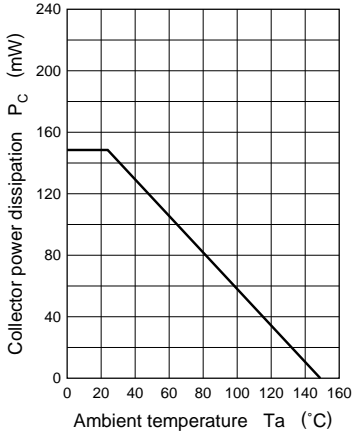
Electrical Characteristics ($T_a=25^\circ\text{C}$)

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	
Transition frequency	f_T^*	$V_{CB} = 10\text{V}$, $I_E = -15\text{mA}$, $f = 200\text{MHz}$	800		1600	MHz
Base to emitter voltage	V_{BE}	$V_{CB} = 10\text{V}$, $I_E = -2\text{mA}$		0.72		V
Common emitter reverse transfer capacitance	C_{re}	$V_{CE} = 10\text{V}$, $I_C = 1\text{mA}$, $f = 10.7\text{MHz}$		1	1.5	pF
Common base reverse transfer capacitance	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

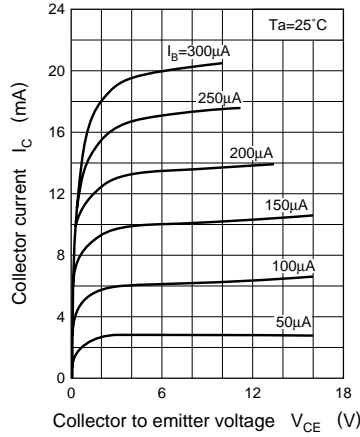
* h_{FE} Rank classification

Rank	T	S
$f_T(\text{MHz})$	800 ~ 1400	1000 ~ 1600
Marking Symbol	RT	RS

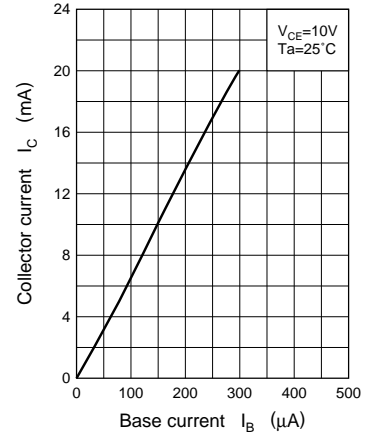
$P_C - T_a$



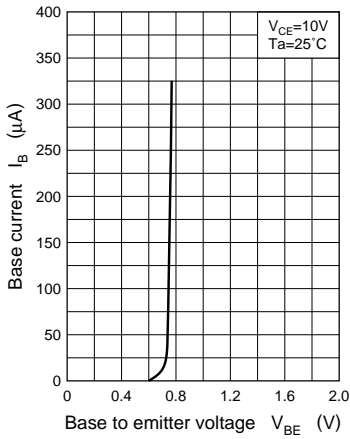
$I_C - V_{CE}$



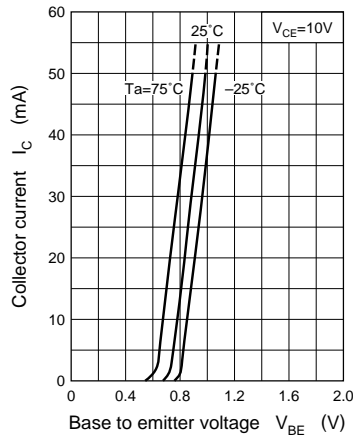
$I_C - I_B$



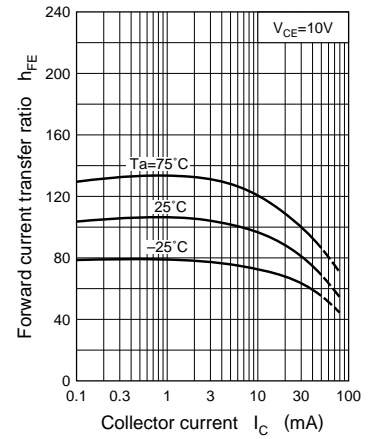
$I_B - V_{BE}$



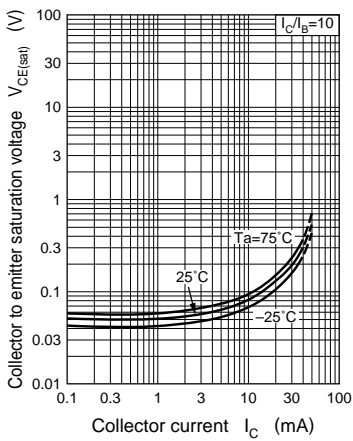
$I_C - V_{BE}$



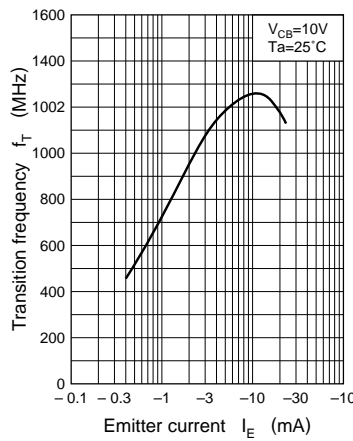
$h_{FE} - I_C$



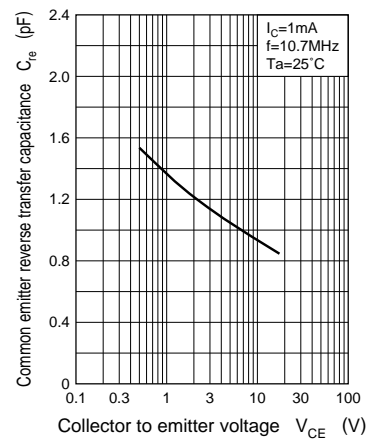
$V_{CE(sat)} - I_C$



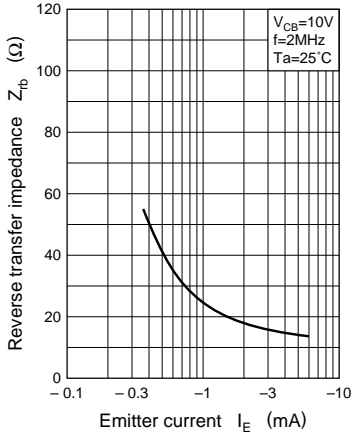
$f_T - I_E$



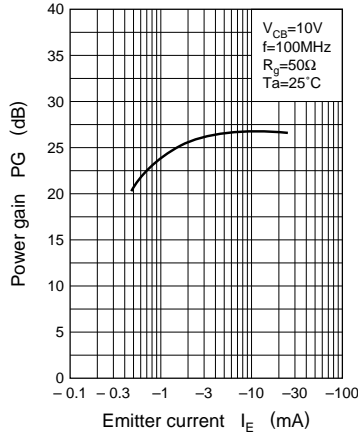
$C_{re} - V_{CE}$



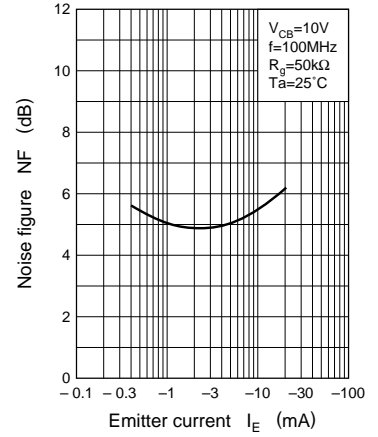
$Z_{rb} - I_E$



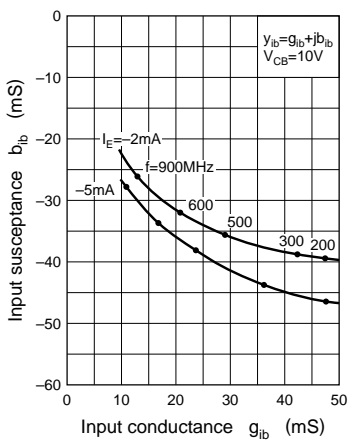
$PG - I_E$



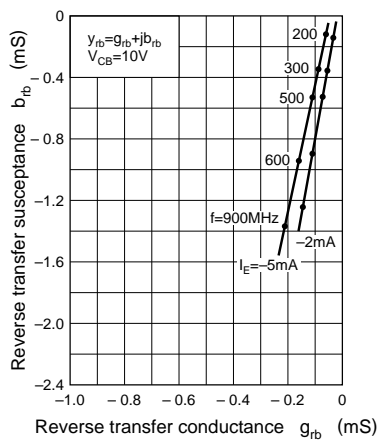
$NF - I_E$



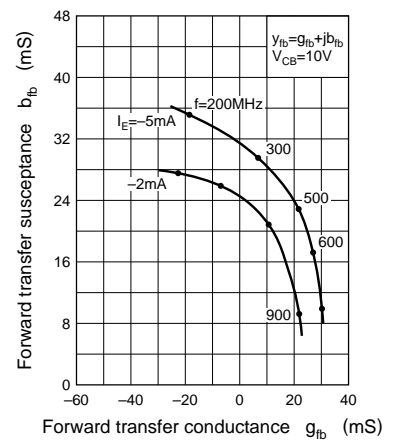
$b_{ib} - g_{ib}$



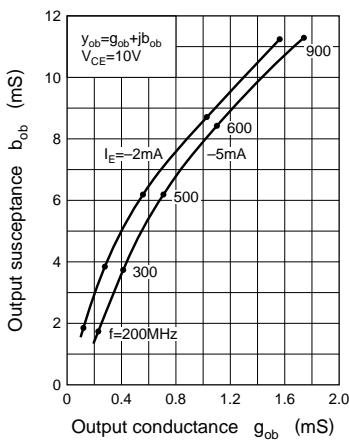
$b_{rb} - g_{rb}$



$b_{fb} - g_{fb}$



$b_{ob} - g_{ob}$



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