

2SC2499

9097250 TOSHIBA (DISCRETE/OPTO)

マイクロ波トランジスタ

低雑音増幅用

39C 00507 D T-31-17

- VHF~UHF低雑音増幅用
- VHF~UHF Low Noise Amplifier Applications

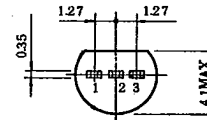
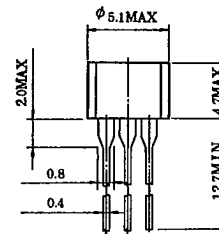
$$NF = 1.7 \text{ dB}, |S_{21e}|^2 = 15 \text{ dB} (f = 500 \text{ MHz})$$

$$NF = 2.5 \text{ dB}, |S_{21e}|^2 = 9.5 \text{ dB} (f = 1000 \text{ MHz})$$

最大定格 MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
コレクタ・ベース間電圧	V_{CBO}	20	V
コレクタ・エミッタ間電圧	V_{CEO}	20	V
エミッタ・ベース間電圧	V_{EBO}	2.0	V
コレクタ電流	I_C	30	mA
エミッタ電流	I_E	-30	mA
コレクタ損失	P_C	300	mW
接合温度	T_j	125	$^\circ\text{C}$
保存温度	T_{stg}	-55~125	$^\circ\text{C}$

Unit in mm



1. Base
2. Emitter
3. Collector

JEDEC TO-92

EIAJ SC-43

TOSHIBA

マイクロ波特性 MICROWAVE CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
雑音指数	NF	$V_{CE} = 10 \text{ V}, I_C = 3 \text{ mA}$ $f = 500 \text{ MHz}$	—	1.7	—	dB
		$V_{CE} = 10 \text{ V}, I_C = 3 \text{ mA}$ $f = 1000 \text{ MHz}$	—	2.5	—	dB
挿入電力利得	$ S_{21e} ^2$	$V_{CE} = 10 \text{ V}, I_C = 10 \text{ mA}$ $f = 500 \text{ MHz}$	—	15.0	—	dB
		$V_{CE} = 10 \text{ V}, I_C = 10 \text{ mA}$ $f = 1000 \text{ MHz}$	—	9.5	—	dB
トランジション周波数	f_T	$V_{CE} = 10 \text{ V}, I_C = 10 \text{ mA}$	—	4.0	—	GHz

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電気的特性 ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	CONDITON	MIN.	TYP.	MAX.	UNIT
コレクタシャ断電流	I_{CBO}	$V_{CB} = 10\text{V}, I_E = 0$	—	—	0.1	μA
エミッタシャ断電流	I_{EBO}	$V_{EB} = 1.0\text{V}, I_E = 0$	—	—	1.0	μA
直 流 電 流 増 幅 率	h_{FE}	$V_{CE} = 10\text{V}, I_C = 5\text{mA}$	30	—	—	—
コレクタ出力容量	C_{ob}	$V_{CB} = 10\text{V}, I_E = 0$ $f = 1\text{MHz}$ (Note 1)	—	0.9	—	pF
帰 還 容 量	C_{re}		—	0.6	—	pF

Note 1. C_{re} は Boonton Electronics Cop. 製 75D Direct Capacitance Bridge
によって三端子法で測定

C_{re} is measured by 3 terminal method with Boonton Electronics
Corporation 75D Direct Capacitance Bridge.

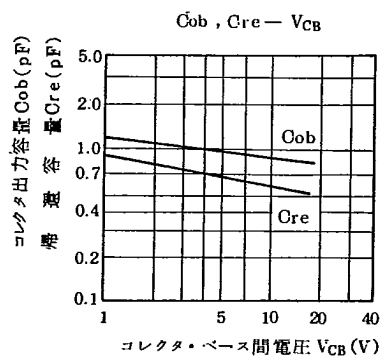
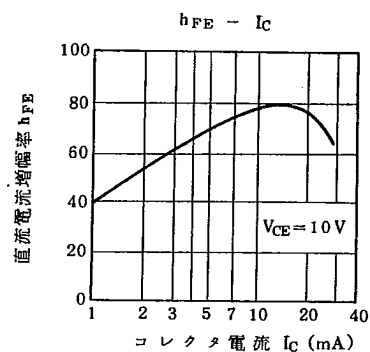
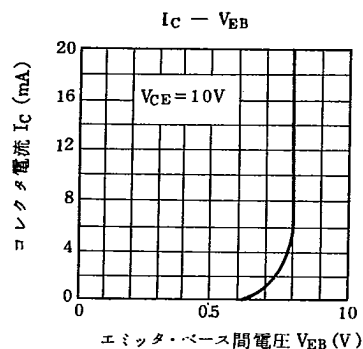
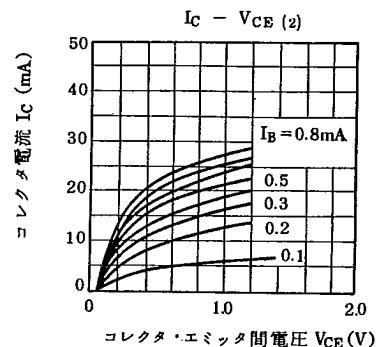
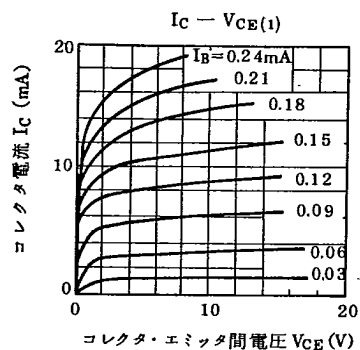
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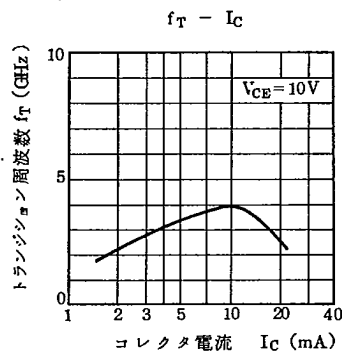
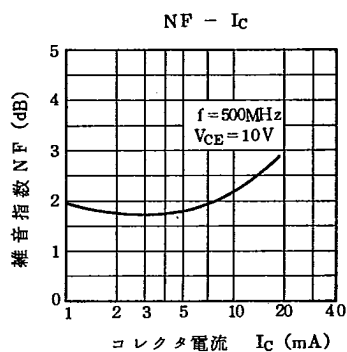
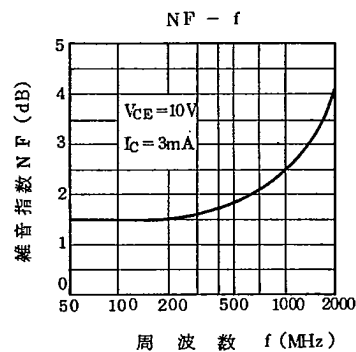
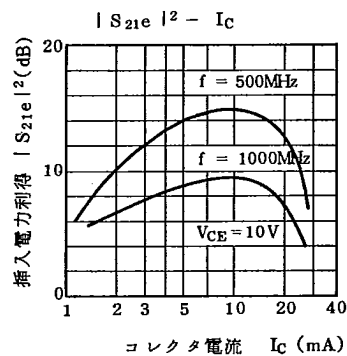
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9097250 TOSHIBA (DISCRETE/OPTO)

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