

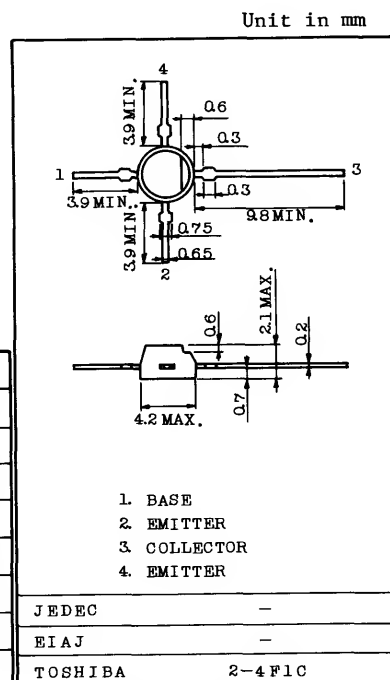
VHF~UHF BAND LOW NOISE AMPLIFIER APPLICATIONS.

FEATURES:

- NF=1.5dB, $|S_{21e}|^2=16.5\text{dB}$ ($f=500\text{MHz}$)
- NF=1.7dB, $|S_{21e}|^2=11\text{dB}$ ($f=1000\text{MHz}$)

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	17	V
Collector-Emitter Voltage	V_{CE0}	12	V
Emitter-Base Voltage	V_{EB0}	3	V
Base Current	I_B	30	mA
Collector Current	I_C	70	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 125	$^\circ\text{C}$



Marking : ME
Weight : 0.08g

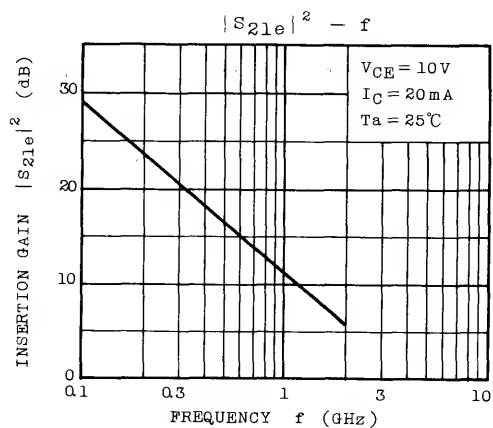
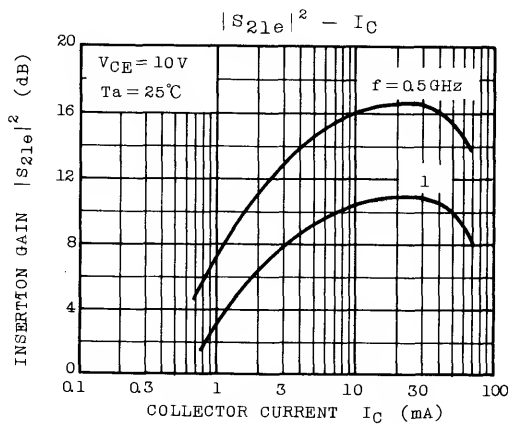
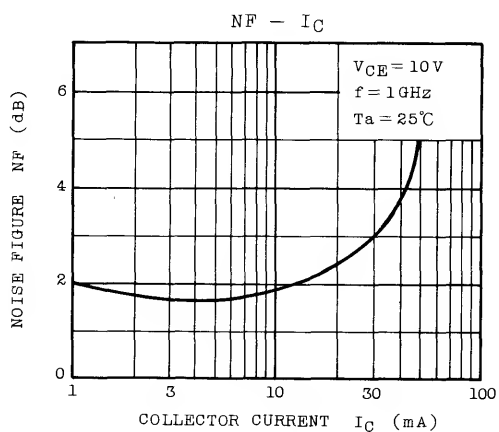
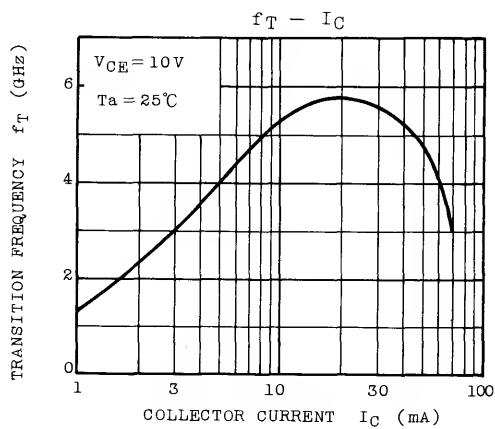
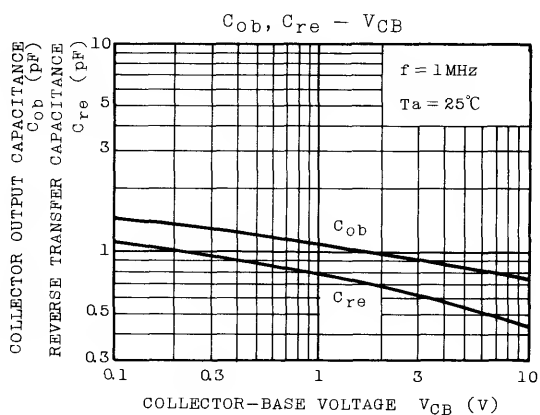
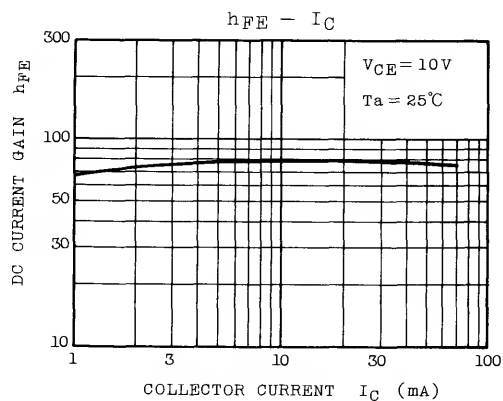
MICROWAVE CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Transition Frequency	f_T	$V_{CE}=10\text{V}$, $I_C=20\text{mA}$	—	5	—	GHz
Insertion Gain	$ S_{21e} ^2(1)$	$V_{CE}=10\text{V}$, $I_C=20\text{mA}$, $f=500\text{MHz}$	—	16.5	—	dB
	$ S_{21e} ^2(2)$	$V_{CE}=10\text{V}$, $I_C=20\text{mA}$, $f=1\text{GHz}$	—	11	—	dB
Noise Figure	NF(1)	$V_{CE}=10\text{V}$, $I_C=5\text{mA}$, $f=500\text{MHz}$	—	1.5	—	dB
	NF(2)	$V_{CE}=10\text{V}$, $I_C=5\text{mA}$, $f=1\text{GHz}$	—	1.7	—	dB

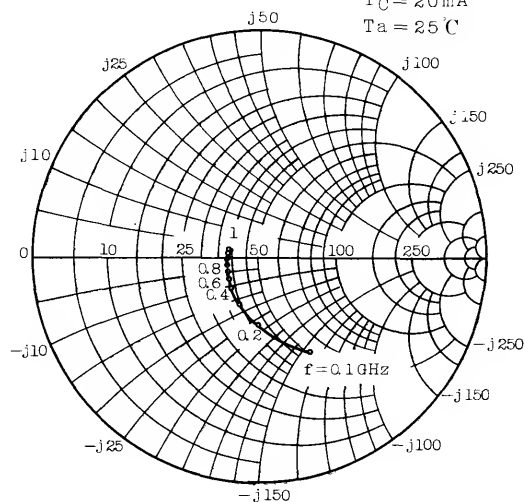
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=10\text{V}$, $I_E=0$	—	—	1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=1\text{V}$, $I_C=0$	—	—	1	μA
DC Current Gain	h_{FE}	$V_{CE}=10\text{V}$, $I_C=20\text{mA}$	25	—	—	
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$	—	0.8	—	pF
Reverse Transfer Capacitance	C_{re}	(Note)	—	0.45	—	pF

Note : C_{re} is measured by 3 terminal method with Capacitance Bridge.

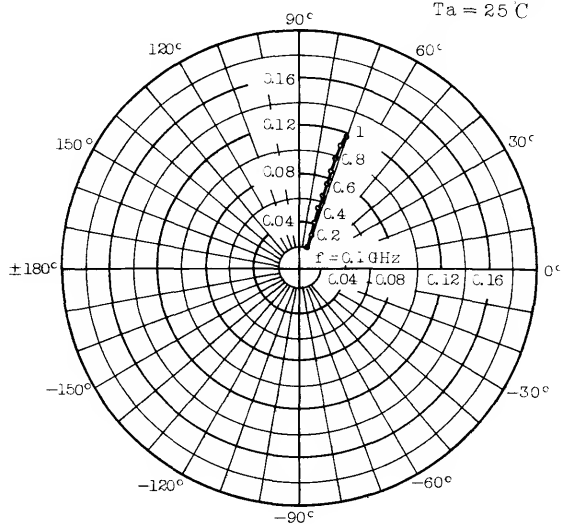


$V_{CE} = 10V$
 $I_C = 20mA$
 $T_a = 25^\circ C$



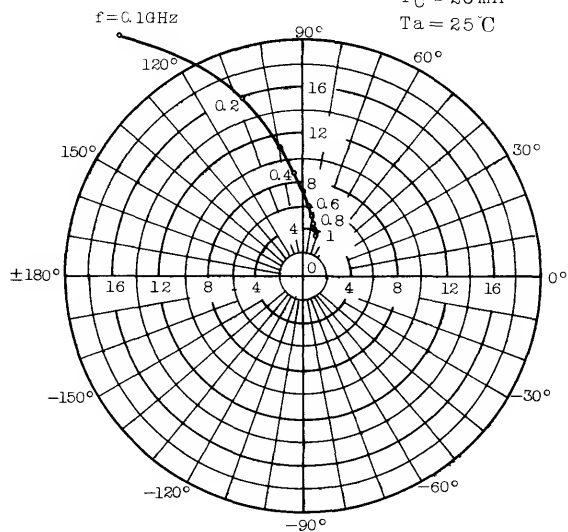
S_{11e}
 (UNIT: Ω)

$V_{CE} = 10V$
 $I_C = 20mA$
 $T_a = 25^\circ C$



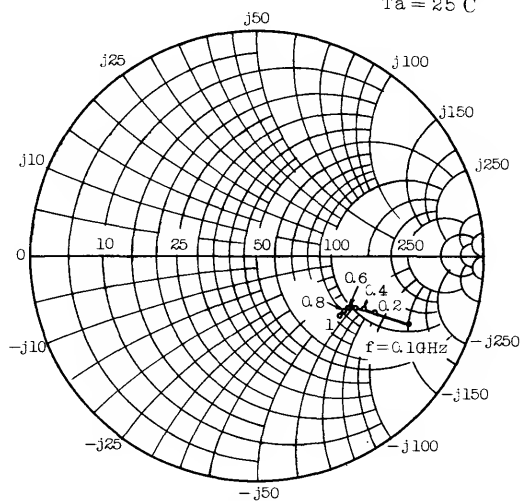
S_{12e}

$V_{CE} = 10V$
 $I_C = 20mA$
 $T_a = 25^\circ C$



S_{21e}

$V_{CE} = 10V$
 $I_C = 20mA$
 $T_a = 25^\circ C$



S_{22e}
 (UNIT: Ω)