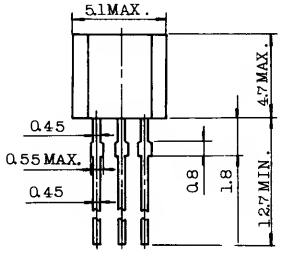
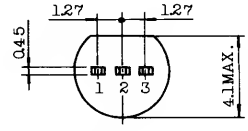
TV VHF RF AMPLIFIER APPLICATIONS.

FEATURES:

- High Gain : G_{pe}=24dB (Typ.)(f=200MHz)
- Low Noise : NF=2.3dB (Typ.)(f=200MHz)
- Excellent Forward AGC Characteristics.

Unit in mm





1. BASE
2. EMITTER
3. COLLECTOR

JEDEC	TO-92
EIAJ	SC-43
TOSHIBA	2-5F1E

Weight : 0.21g

MAXIMUM RATINGS (Ta=25°C)

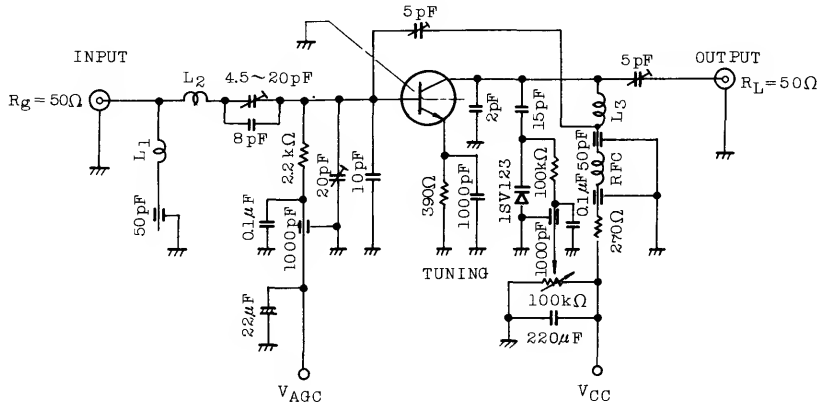
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	2	V
Collector Current	I_C	20	mA
Emitter Current	I_E	-20	mA
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	-55~125	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=25V, I_E=0	-	-	100	nA
Emitter Cut-off Current	I_{EBO}	V_{EB}=2V, I_C=0	-	-	100	nA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	30	-	-	V
DC Current Gain	h_{FE}	V_{CE}=10V, I_C=2mA	20	-	200	
Reverse Transfer Capacitance	C_{re}	V_{CB}=10V, I_E=0, f=1MHz	-	0.3	0.4	pF
Transition Frequency	f_T	V_{CE}=10V, I_C=2mA	400	650	-	MHz
Power Gain	G_{pe}	V_{CE}=12V, V_{AGC}=1.4V, f=200MHz	20	24	28	dB
Noise Figure	NF		-	2.3	3.2	dB
AGC Voltage (Note)	V_{AGC}	V_{CC}=12V, GR=30dB, f=200MHz	3.6	4.4	5.1	V

Note : V_{AGC} : V_{AGC} measured by test circuit shown in Fig. 1 when power gain is reduced to 30dB compared that of V_{AGC} at 1.4V.

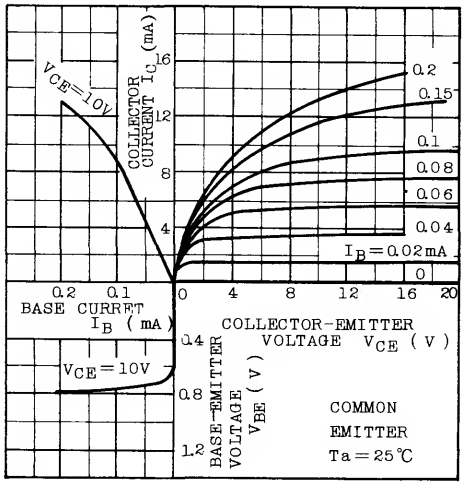
Fig.1 200MHz Gpe , NF & V_{AGC} TEST CIRCUIT



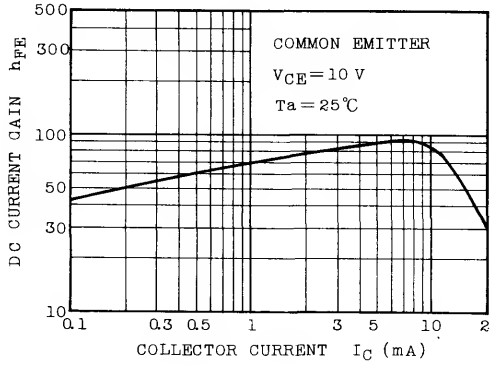
L1 , L2 : SILVER PLATED COPPER WIRE , 1.0T , 10mmID

L3 : SILVER PLATED COPPER WIRE , 2.0T , 10mmID

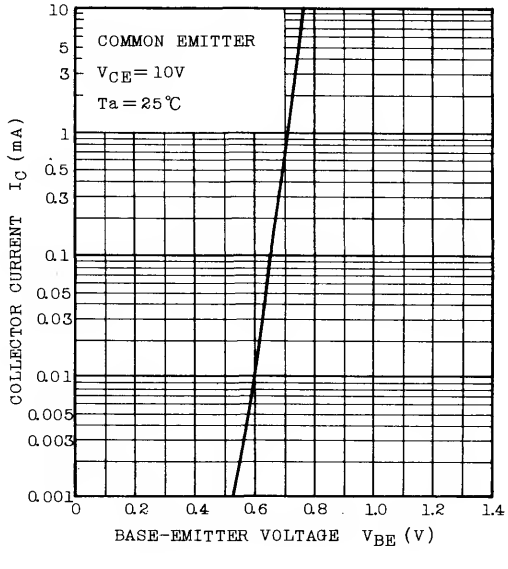
STATIC CHARACTERISTICS



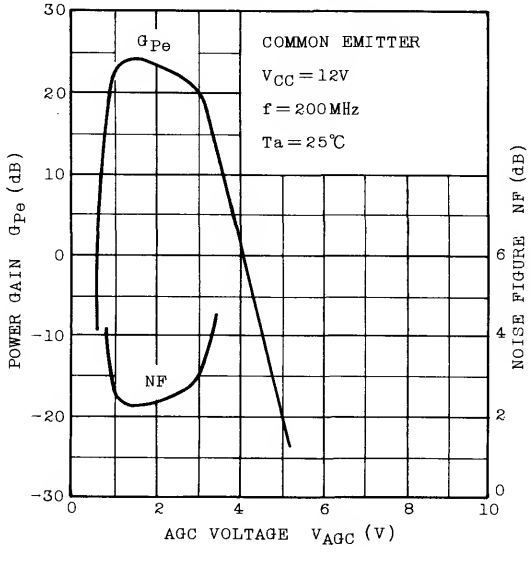
h_{FE} - I_C



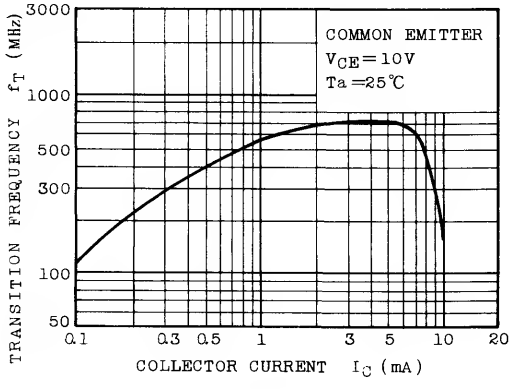
I_C - V_{BE}



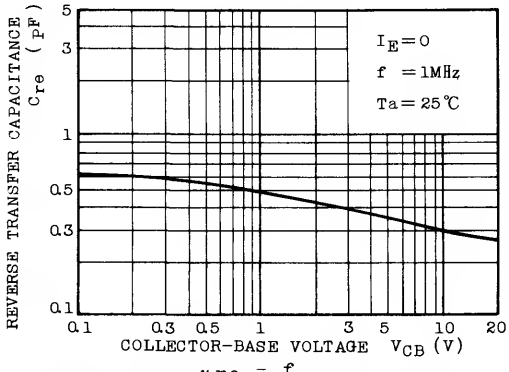
G_{Pe}, NF - V_{AGC}



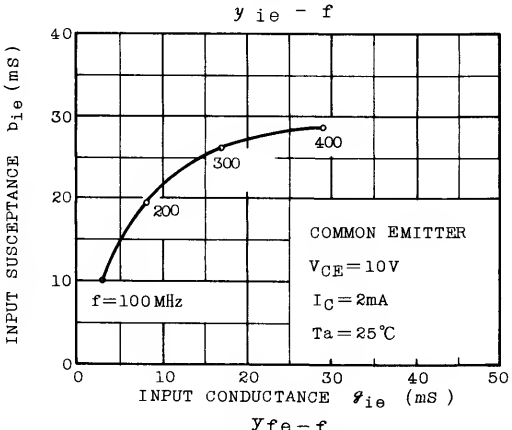
$f_T - I_C$



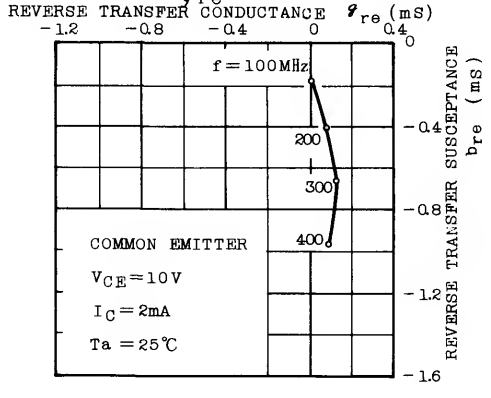
$C_{re} - V_{CB}$



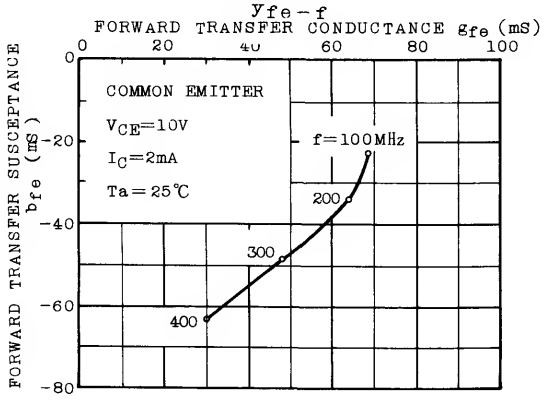
$y_{ie} - f$



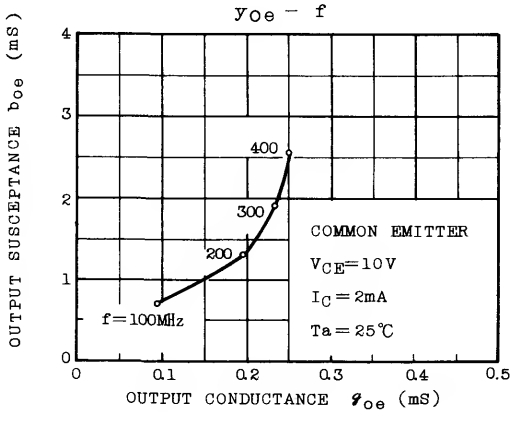
$y_{re} - f$



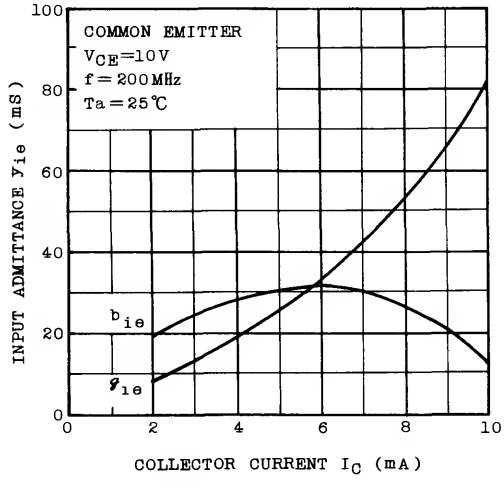
$y_{fe} - f$



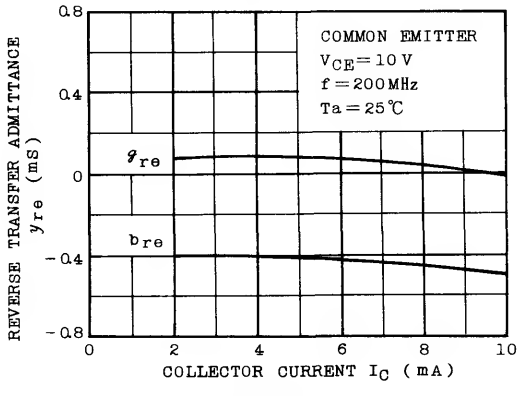
$y_{oe} - f$



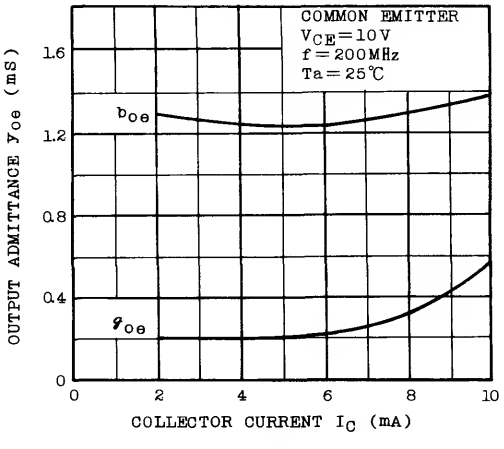
$y_{ie} - I_C$



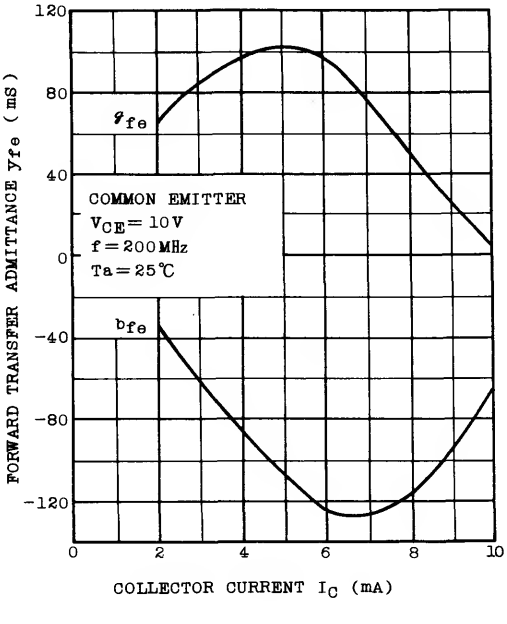
$y_{re} - I_C$



$y_{oe} - I_C$



$y_{fe} - I_C$



$P_C - Ta$