TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL PLANAR TYPE

2SC4252

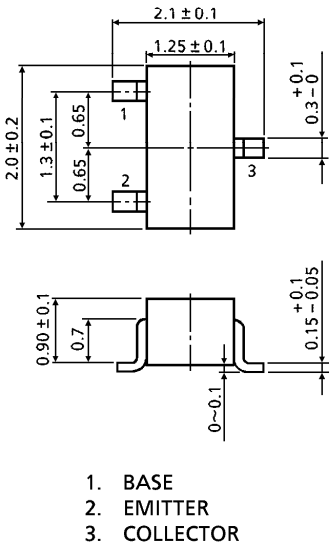
TV TUNER, VHF OSCILLATOR APPLICATIONS (COMMON COLLECTOR)

Unit in mm

- Transition Frequency is High and Dependent on Current Excellently.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	20	V
Collector-Emitter Voltage	V_{CEO}	12	V
Emitter-Base Voltage	V_{EBO}	3	V
Base Current	I_B	15	mA
Collector Current	I_C	30	mA
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	−55~125	°C

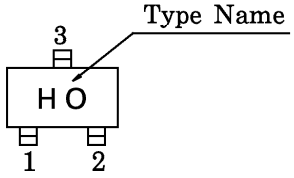


1. BASE
2. EMITTER
3. COLLECTOR

JEDEC	—
EIAJ	SC-70
TOSHIBA	2-2E1A

Weight : 0.006g

Marking



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=20V, I_E=0	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=3V, I_C=0	—	—	1.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	12	—	—	V
DC Current Gain	h_{FE}	V_{CE}=10V, I_C=5mA	40	100	250	—
Transition Frequency	f_T	V_{CE}=10V, I_C=5mA, f=500MHz	1.5	2.1	—	GHz
Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	—	1.1	1.4	pF
Collector-Base Time Constant	C_c . rbb'	V_{CB}=10V, I_C=5mA, f=30MHz	—	4.3	10	ps

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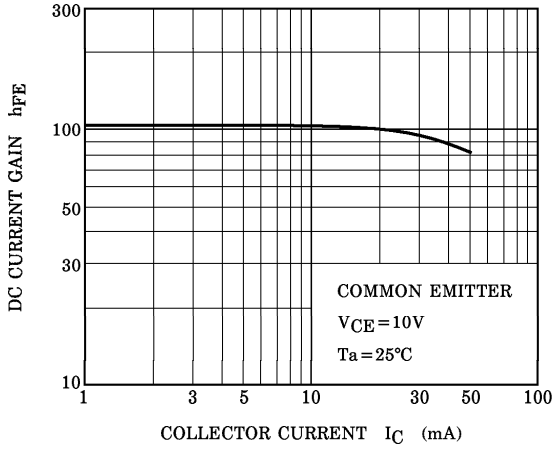
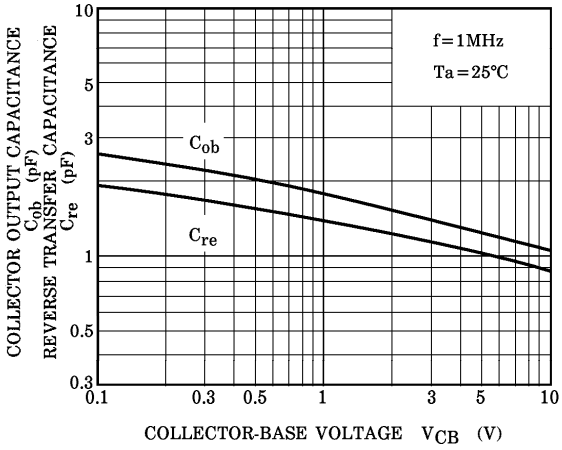
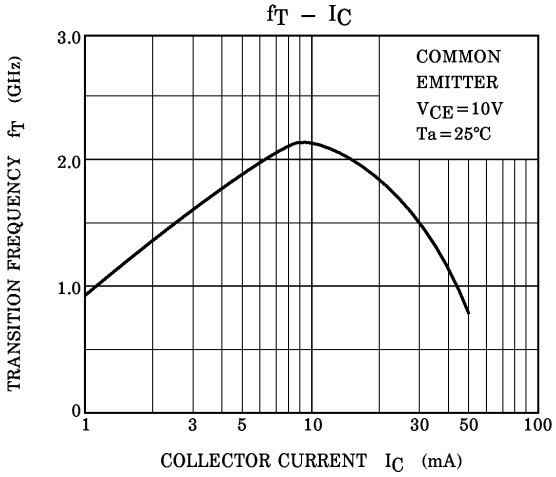
h_{FE} – I_C



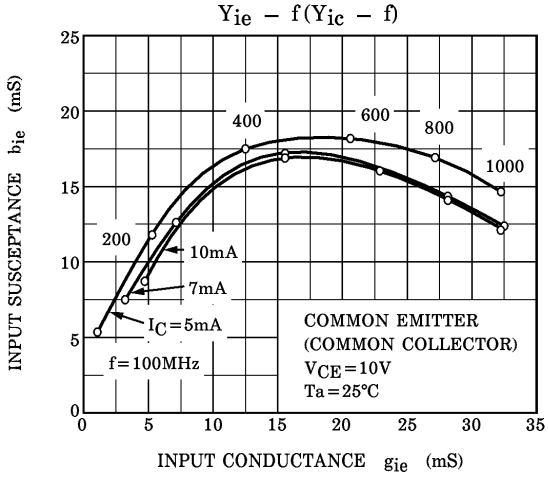
C_{ob}, C_{re} – V_{CB}



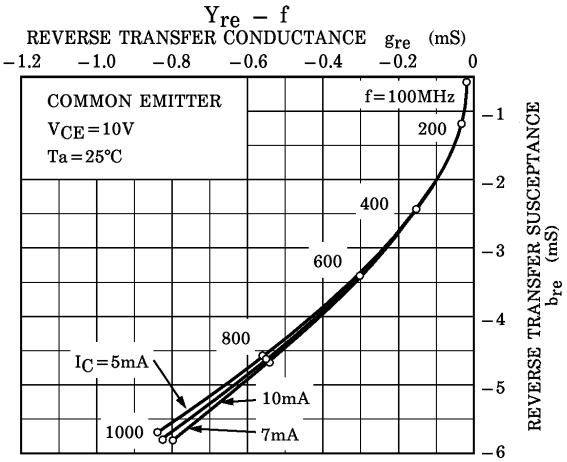
f_T – I_C



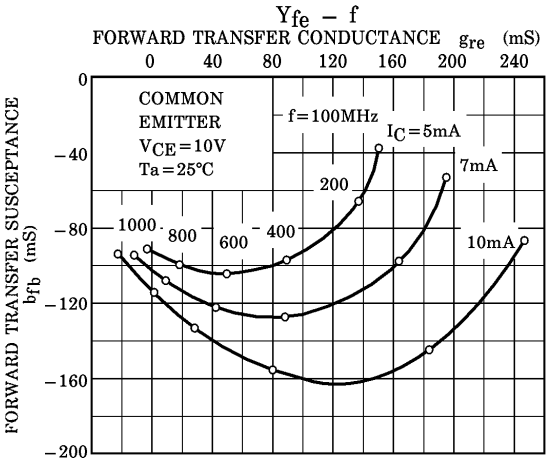
Y_{ie} – f(Y_{ic} – f)



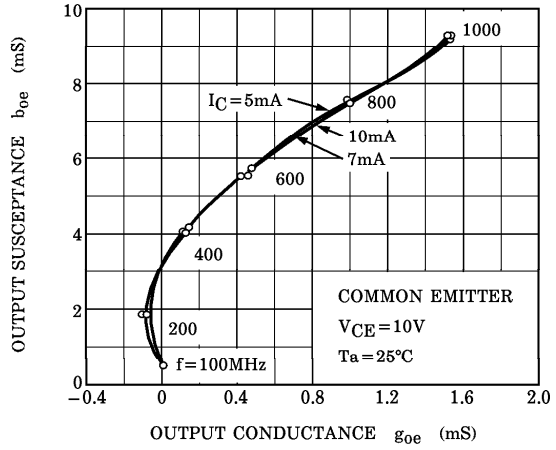
Y_{re} – f



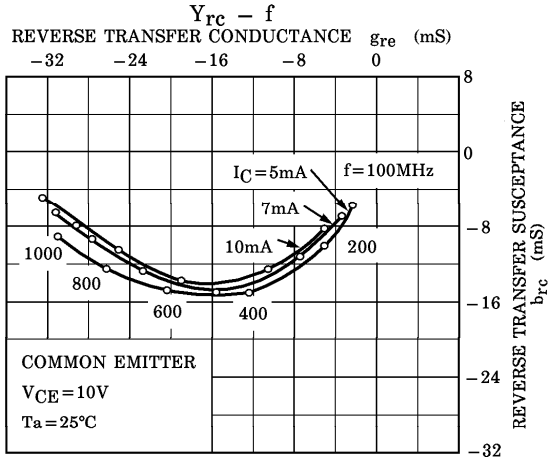
Y_{fe} – f



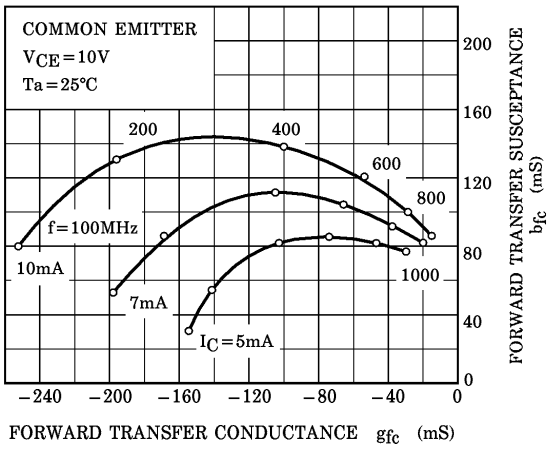
Y_{oe} – f



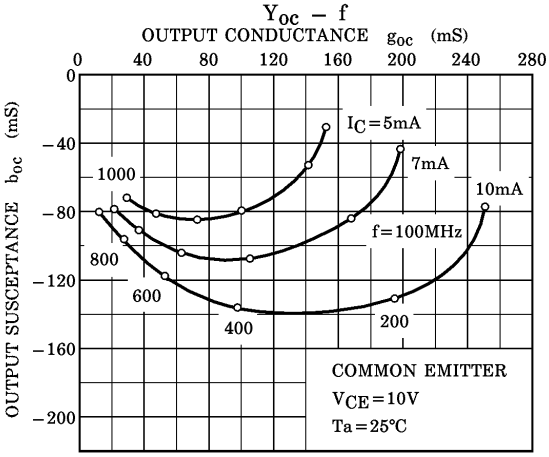
Y_{rc} – f



Y_{fc} – f



Y_{oc} – f



P_C – Ta