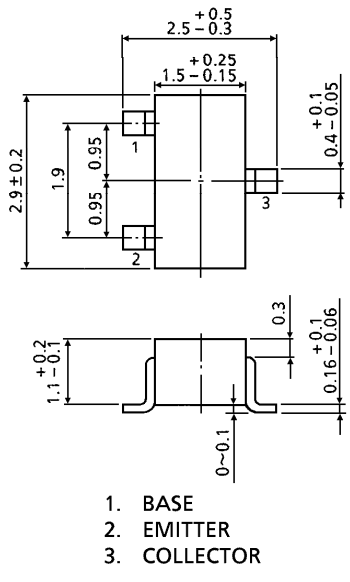
TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL PLANAR TYPE

2SC3547B

TV TUNER, UHF OSCILLATOR APPLICATIONS

(COMMON COLLECTOR)

Unit in mm



1. BASE
2. EMITTER
3. COLLECTOR

JEDEC	—
EIAJ	—
TOSHIBA	2-3F1A

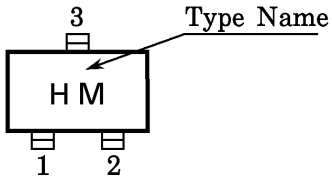
Weight : 0.012g

- 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	150	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	−55~125	°C

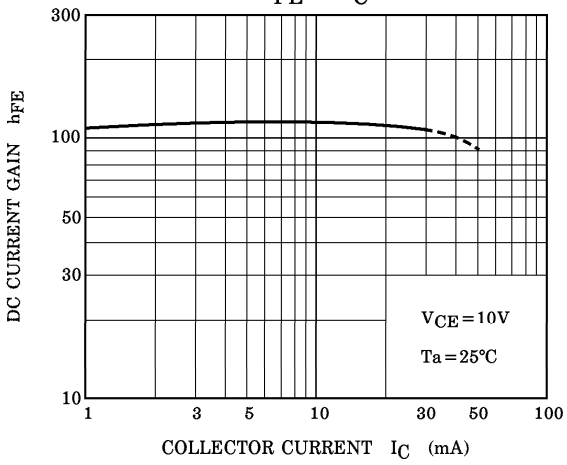
Marking



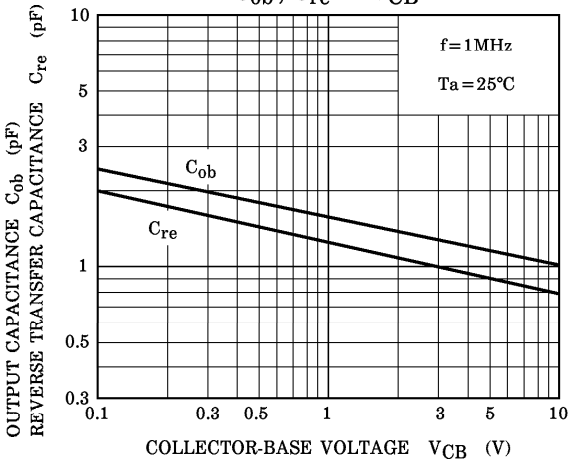
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = 10V, I_E = 0	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 1V, 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	70	—	300	—
Transition Frequency	f_T	V_{CE} = 10V, I_C = 10mA	3	4	—	GHz
Output Capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz	—	1.05	1.35	pF
Collector-Base Time Constant	C_c . rbb'	V_{CB} = 10V, I_C = 5mA, f = 30MHz	—	4.5	9	ps

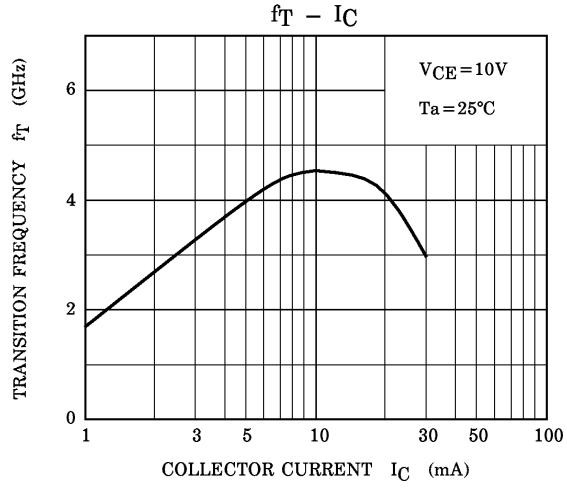
h_{FE} – I_C



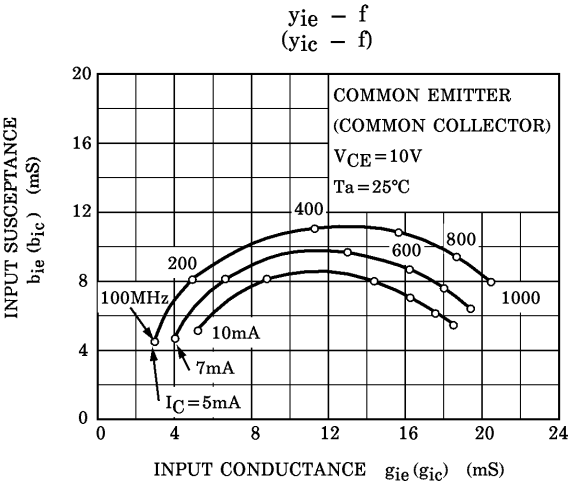
C_{ob}, C_{re} – V_{CB}



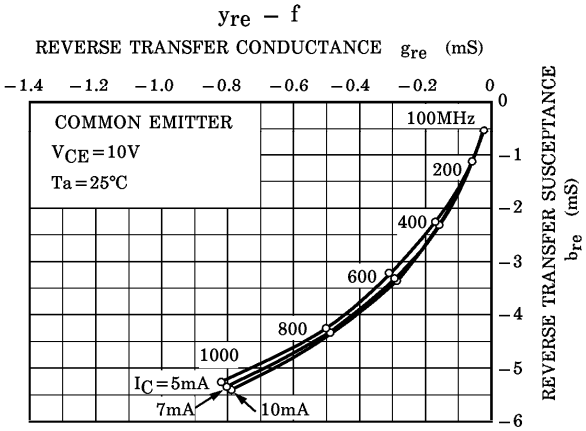
f_T – I_C



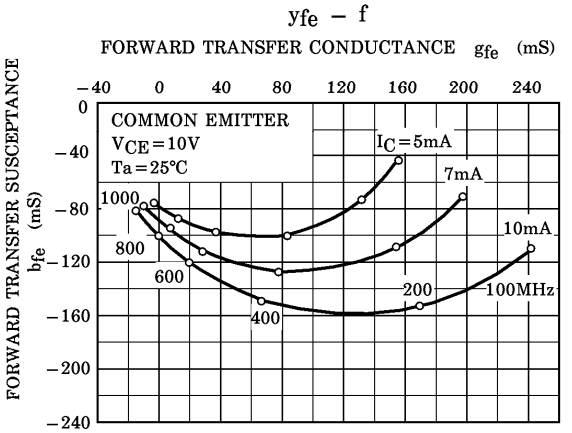
y_{ie} – f
(y_{ic} – f)



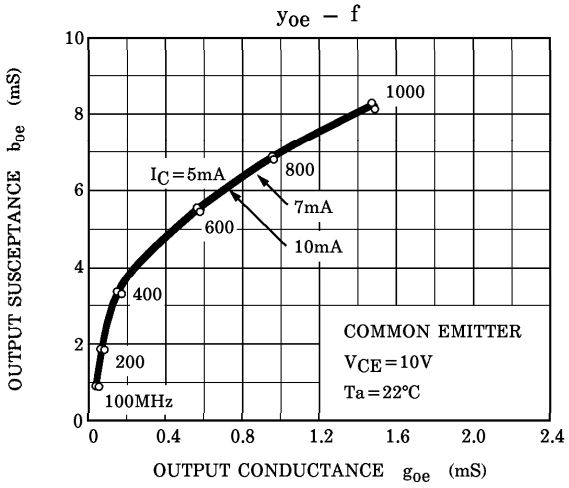
y_{re} – f



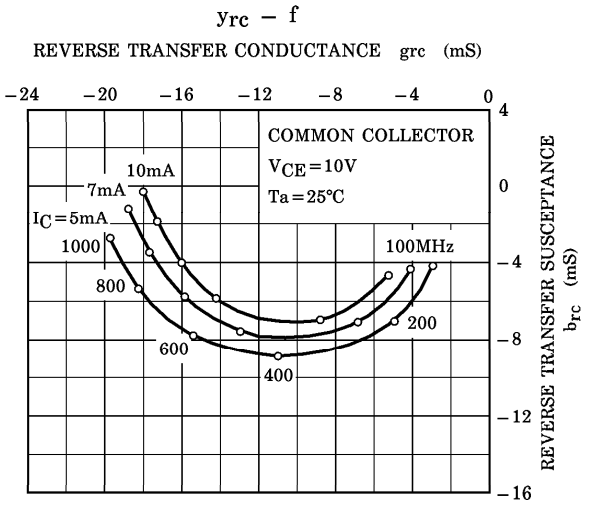
y_{fe} – f



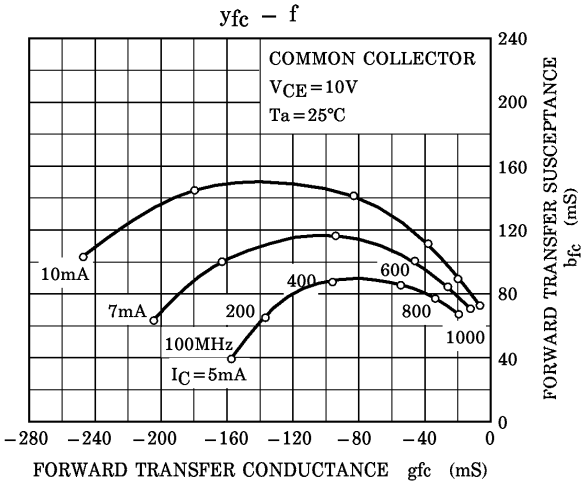
y_{oe} – f



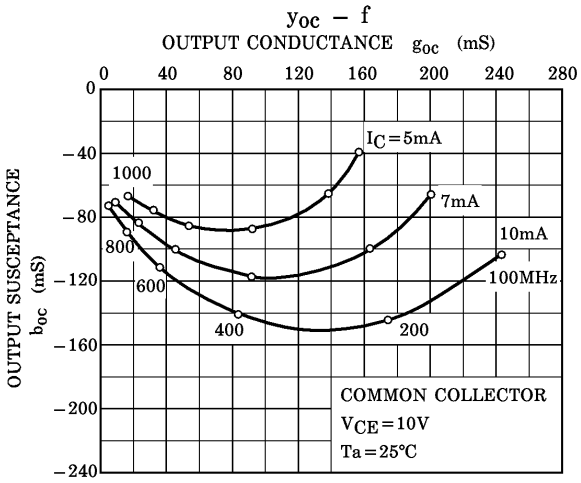
y_{rc} – f



y_{fc} – f



y_{oc} – f



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