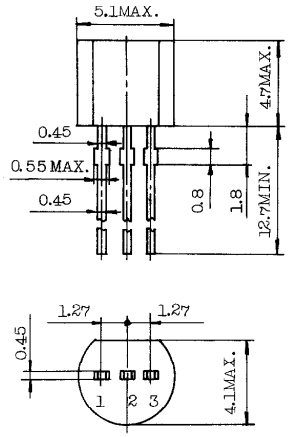
TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL PLANAR TYPE

2SC2347

TV UHF OSCILLATOR APPLICATIONS.
TV VHF MIXER APPLICATIONS.

Unit in mm



1. EMITTER
2. COLLECTOR
3. BASE

JEDEC	TO-92
EIAJ	SC-43
TOSHIBA	2-5F1B

Weight : 0.21g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	3	V
Collector Current	I_C	50	mA
Emitter Current	I_E	−50	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}=15V, 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	15	—	—	V
DC Current Gain	h_{FE}	V_{CE}=3V, I_C=8mA	20	—	—	—
Transition Frequency	f_T	V_{CE}=10V, I_C=8mA	650	—	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=MHz	—	1.2	1.5	pF
Collector-Base Time Constant	$C_c.r_{bb'}$	V_{CB}=10V, I_C=8mA, f=30MHz	—	—	12	ps

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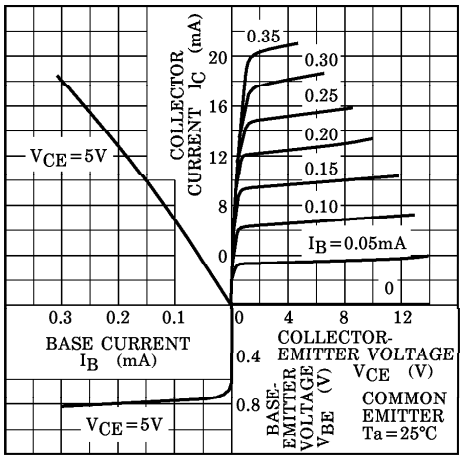
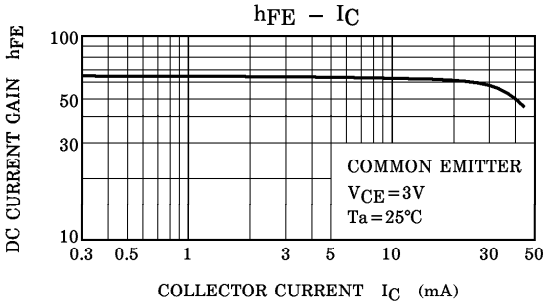
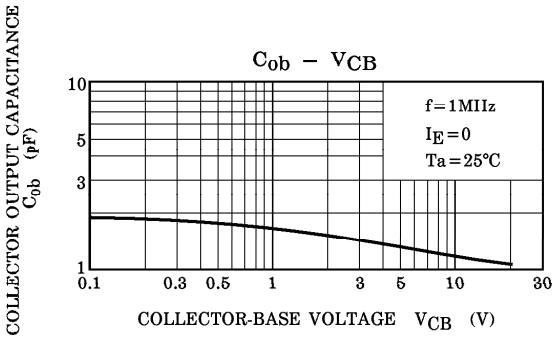
STATIC CHARACTERISTICS



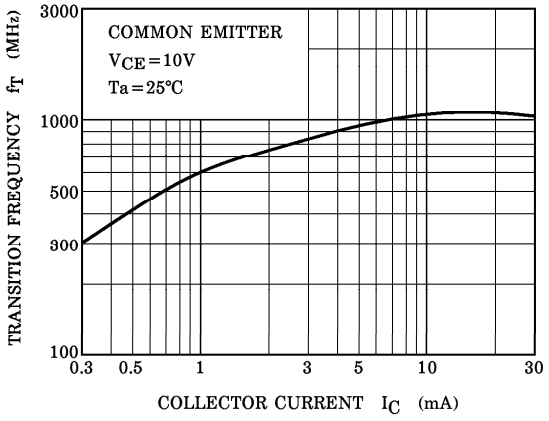
h_{FE} – I_C



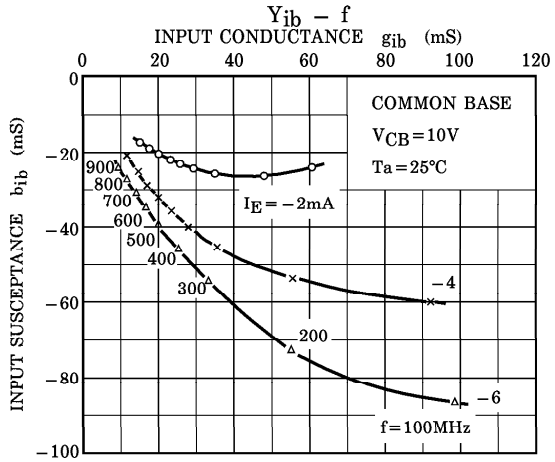
C_{ob} – V_{CB}



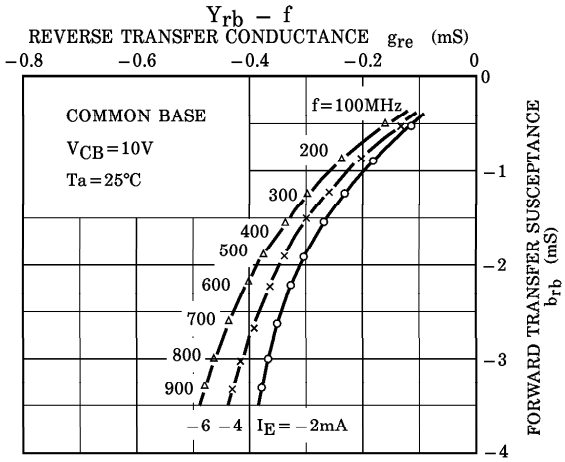
f_T – I_C



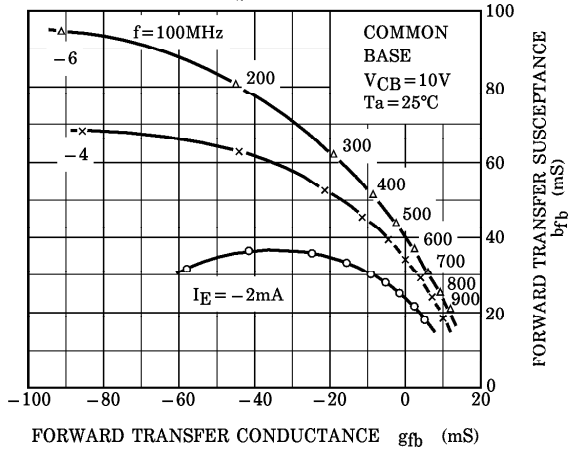
Y_{ib} – f



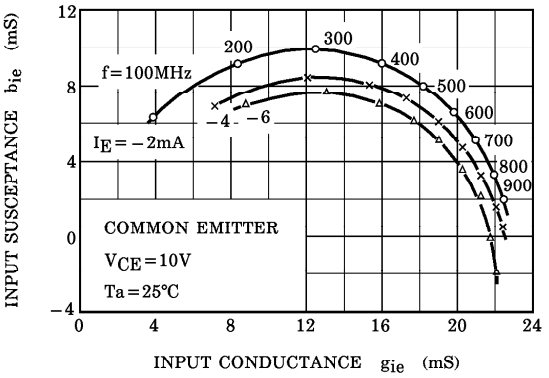
Y_{rb} – f



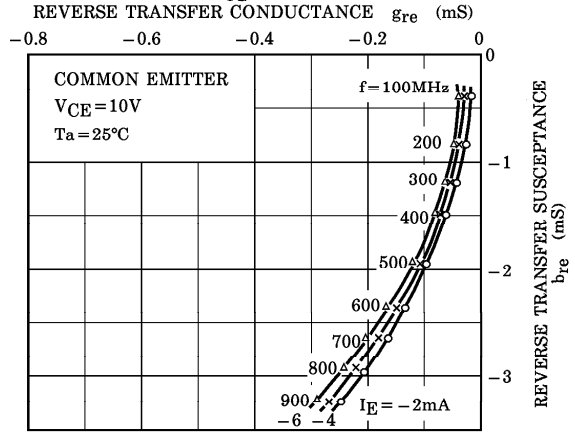
Y_{fb} – f



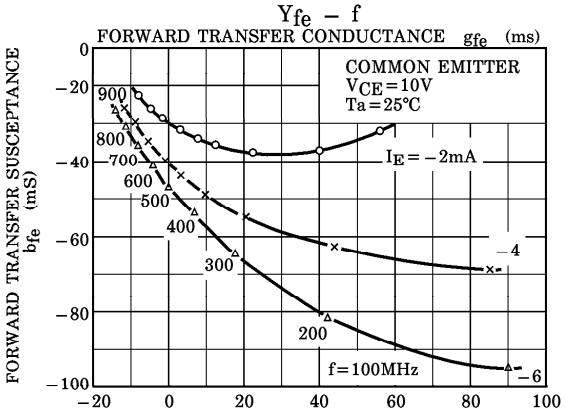
Y_{ie} – f



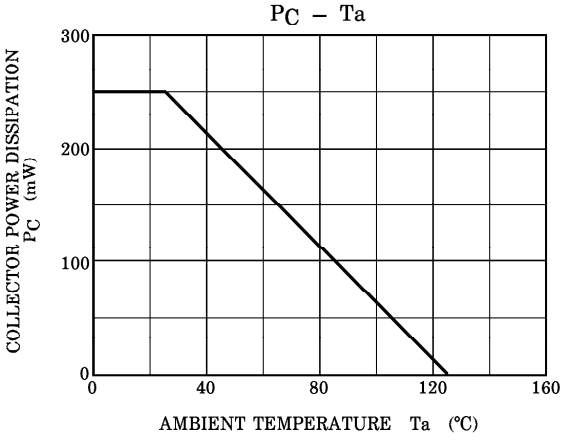
Y_{re} – f



Y_{fe} – f



P_C – Ta



Y_{oe} – f (Y_{ob} – f)