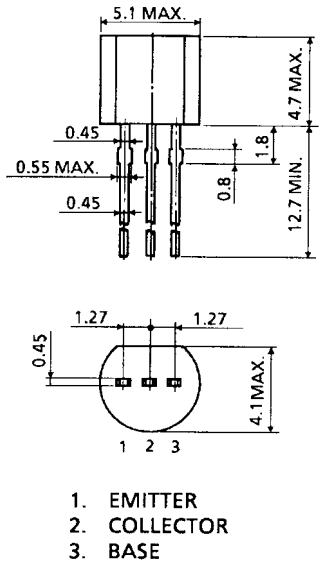
TOSHIBA Transistor Silicon NPN Epitaxial Planar Type

2SC2347

TV UHF Oscillator Applications

TV VHF Mixer Applications

Unit: mm



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

Weight: 0.21 g (typ.)

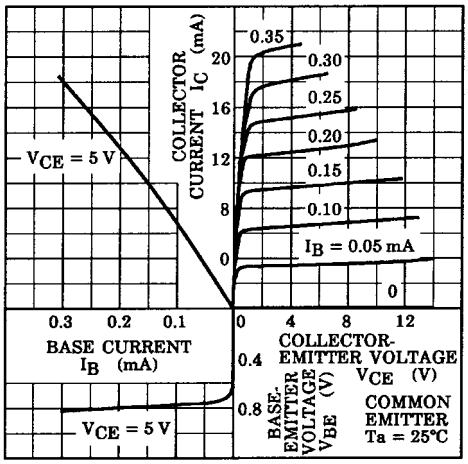
Maximum Ratings (Ta = 25°C)

Characteristics	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

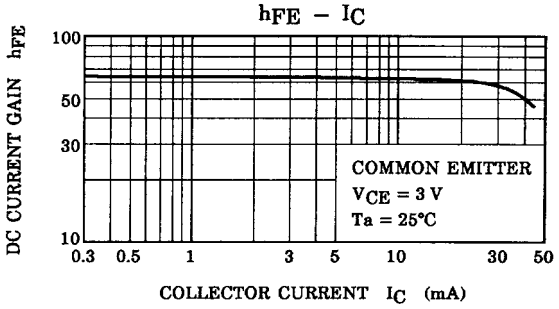
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB} = 15 V, I_E = 0	—	—	0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB} = 3 V, I_C = 0	—	—	1.0	μA
Collector-emitter breakdown voltage	$V_{(BR)\ CEO}$	I_C = 1 mA, I_B = 0	15	—	—	V
DC current gain	h_{FE}	V_{CE} = 3 V, I_C = 8 mA	20	—	—	
Transition frequency	f_T	V_{CE} = 10 V, I_C = 8 mA	650	—	—	MHz
Collector output capacitance	C_{ob}	V_{CB} = 10 V, I_E = 0, f = 1 MHz	—	1.2	1.5	pF
Collector-base time constant	C_c.rbb'	V_{CB} = 10 V, I_C = 8 mA, f = 30 MHz	—	—	12	ps

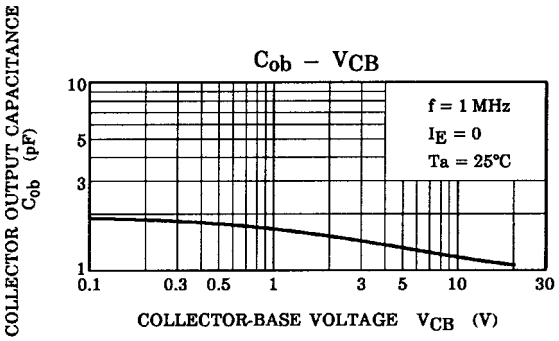
STATIC CHARACTERISTICS



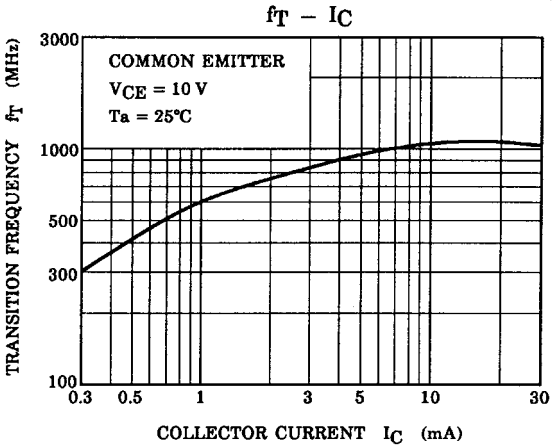
h_{FE} – I_C



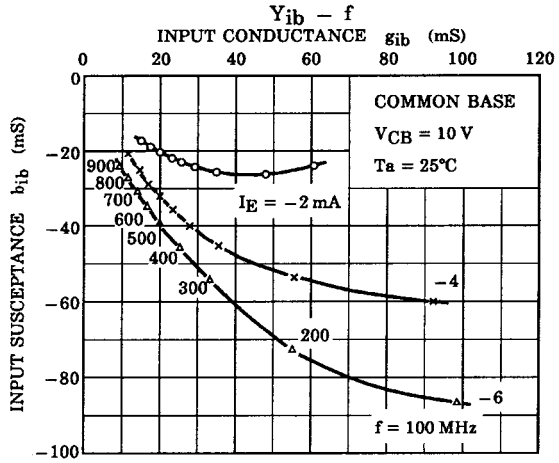
C_{ob} – V_{CB}



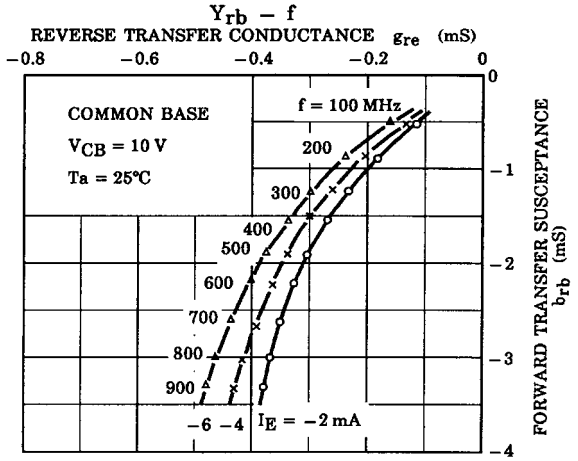
f_T – I_C



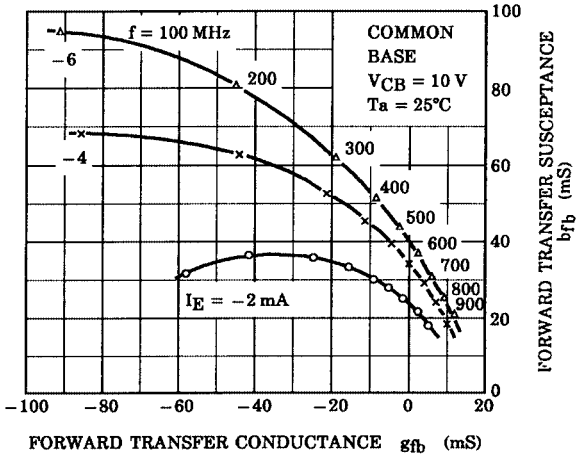
Y_{ib} – f



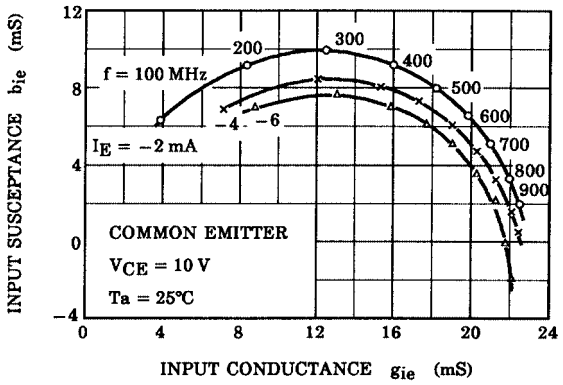
Y_{rb} – f



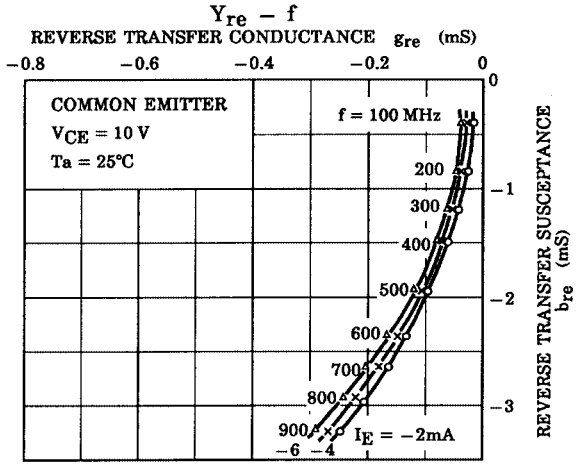
Y_{fb} – f



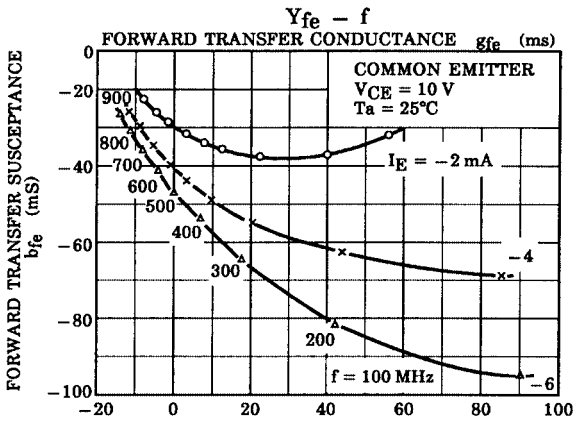
Y_{ie} – f



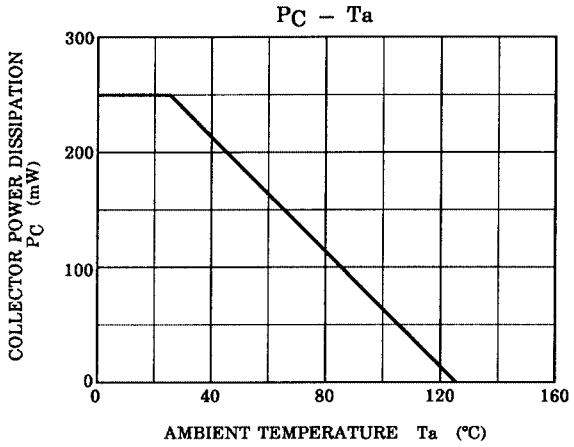
Y_{re} – f



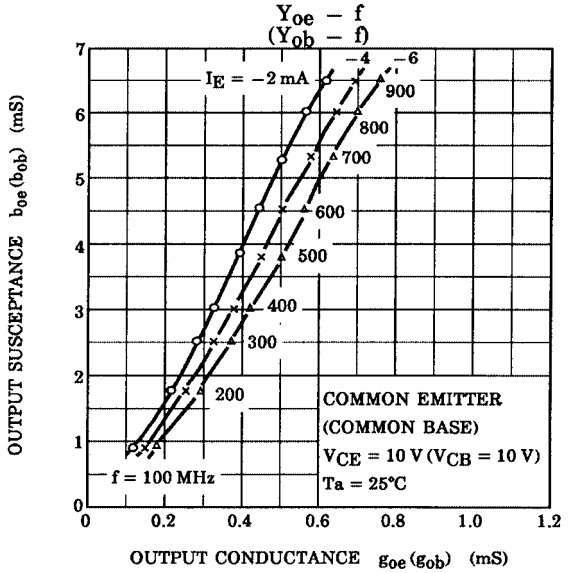
Y_{fe} – f



PC – Ta



Y_{oe} – f
(Y_{ob} – f)



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