

TOSHIBA Transistor Silicon NPN Epitaxial Planar Type

2SC2347

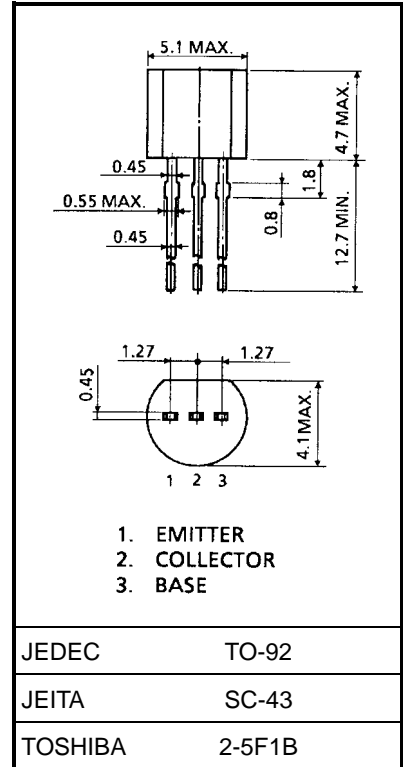
TV UHF Oscillator Applications

TV VHF Mixer Applications

Unit: mm

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	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

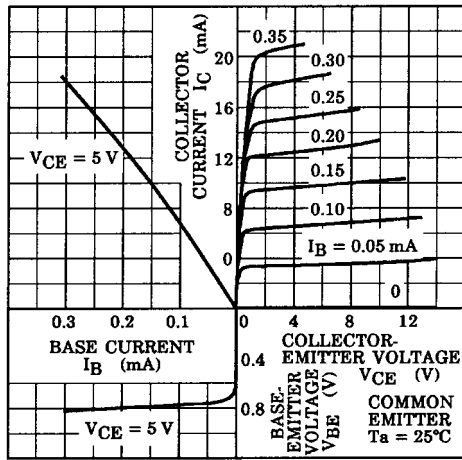


Weight: 0.21 g (typ.)

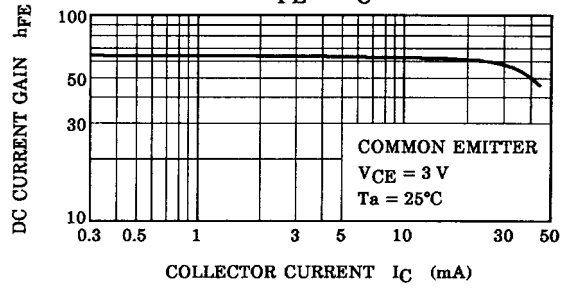
Electrical Characteristics (Ta = 25°C)

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

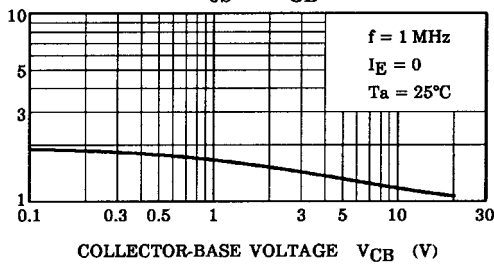


hFE - IC

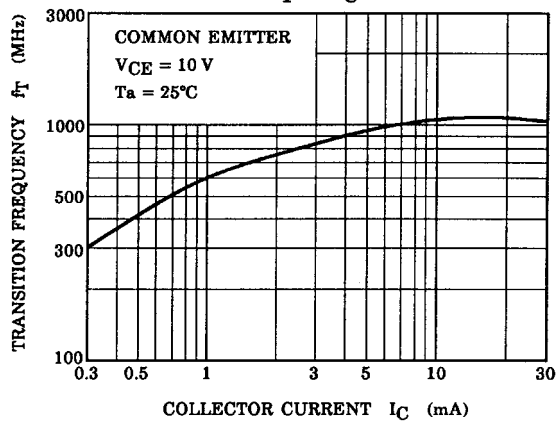


COLLECTOR OUTPUT CAPACITANCE C_{ob} (pF)

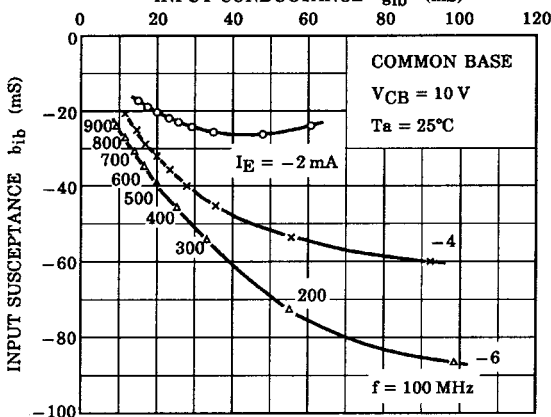
$C_{ob} - V_{CB}$



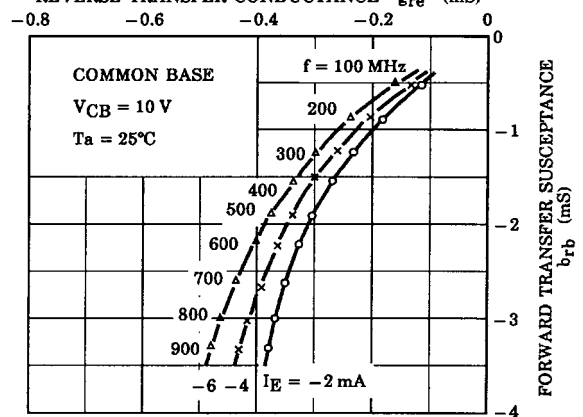
$f_T - I_C$

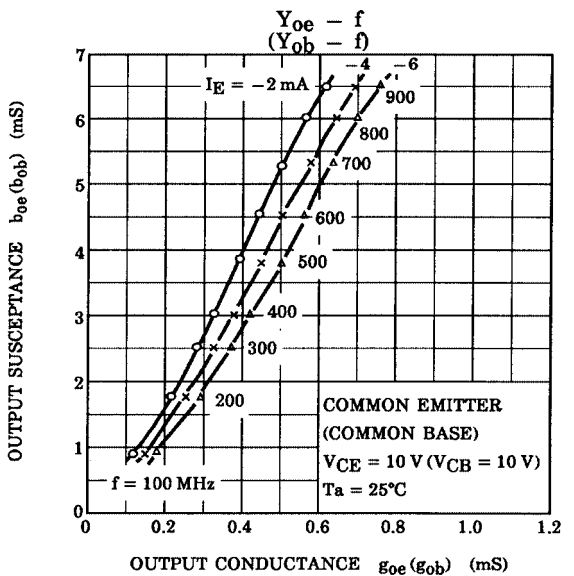
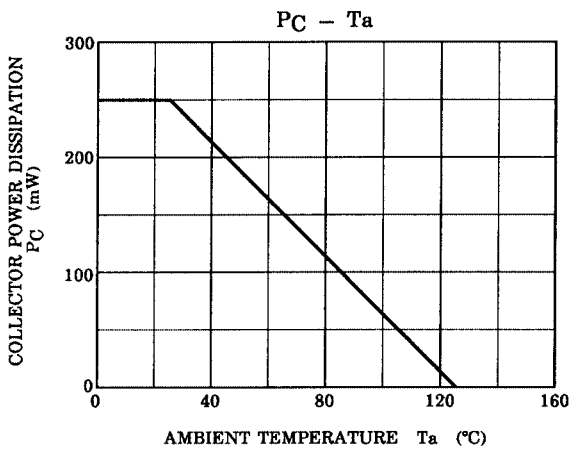
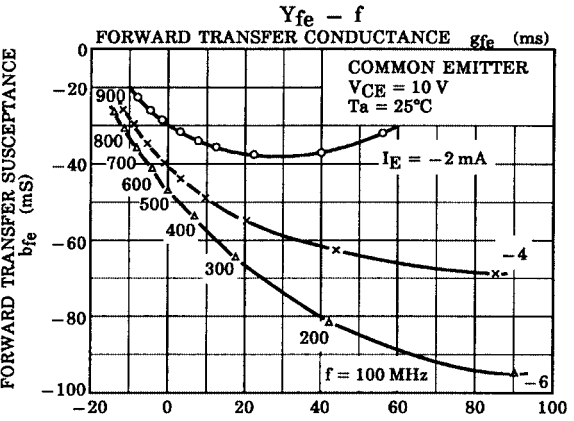
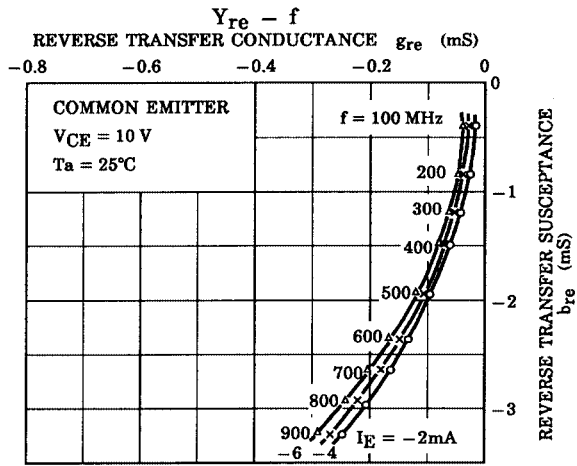
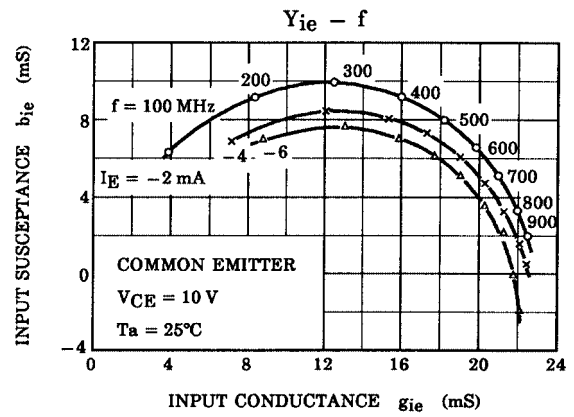
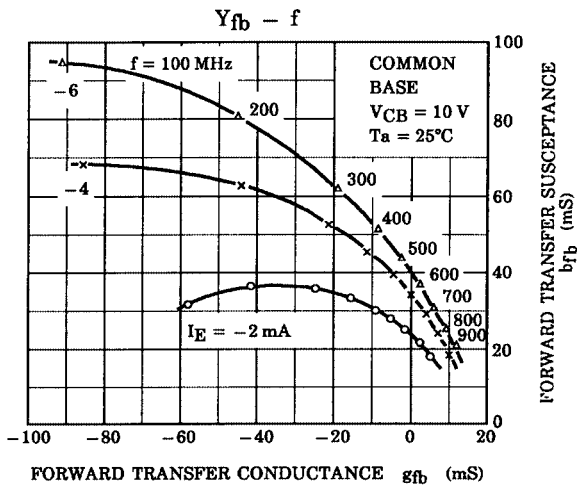


$Y_{ib} - f$



$Y_{rb} - f$





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