

TOSHIBA Transistor Silicon NPN Epitaxial Planar Type

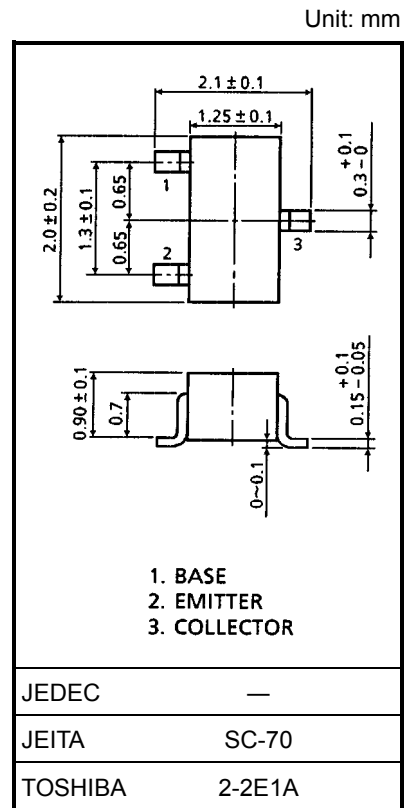
# 2SC4247

TV Tuner, UHF Oscillator Applications  
(common collector)

- Transition frequency is high and dependent on current excellently.

### Maximum Ratings (Ta = 25°C)

Characteristics	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

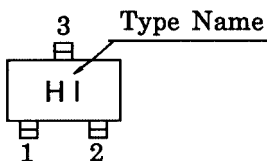


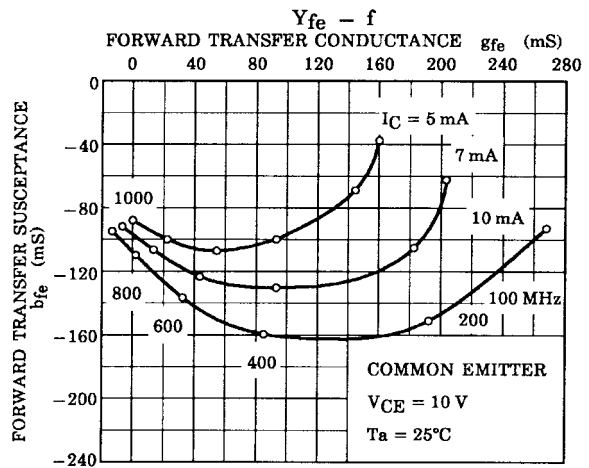
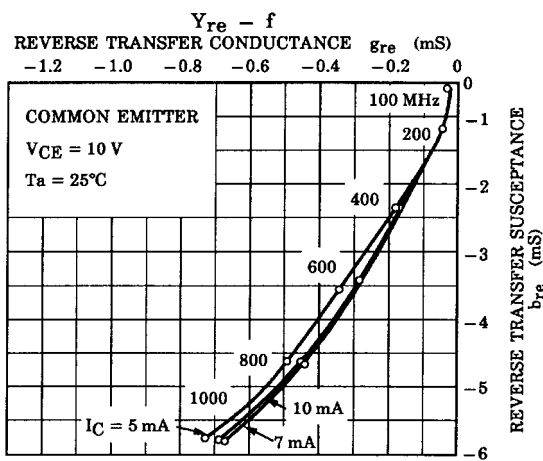
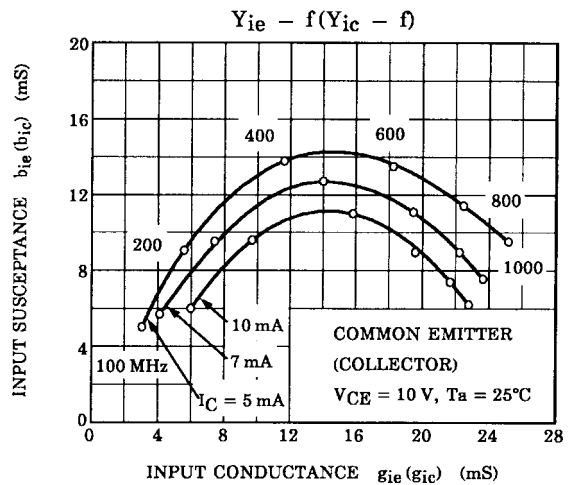
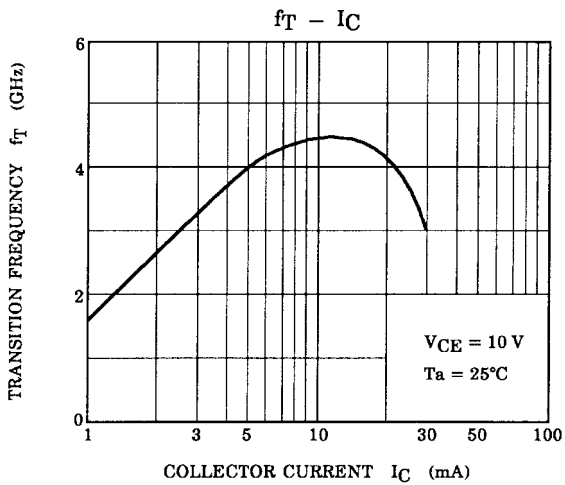
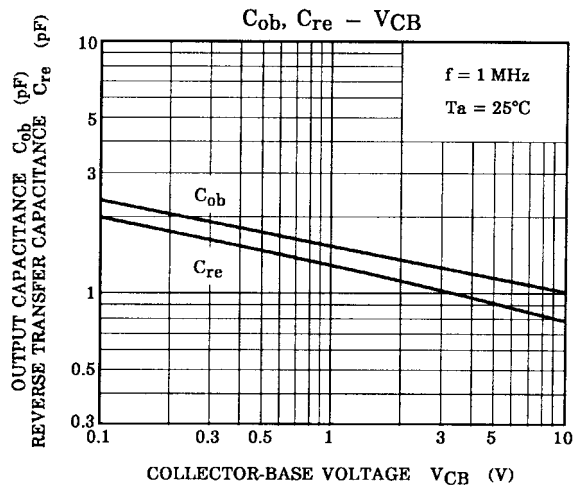
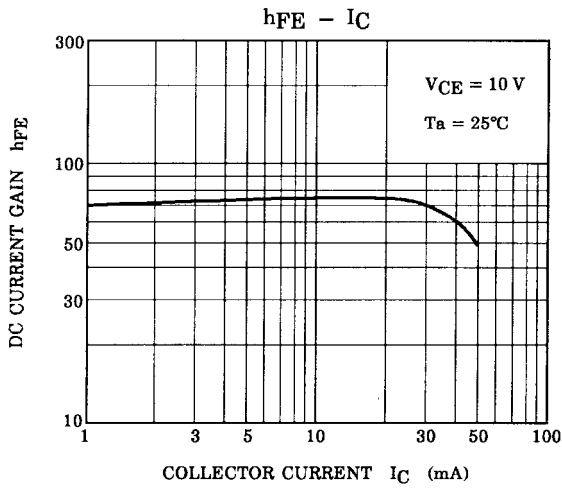
Weight: 0.006 g (typ.)

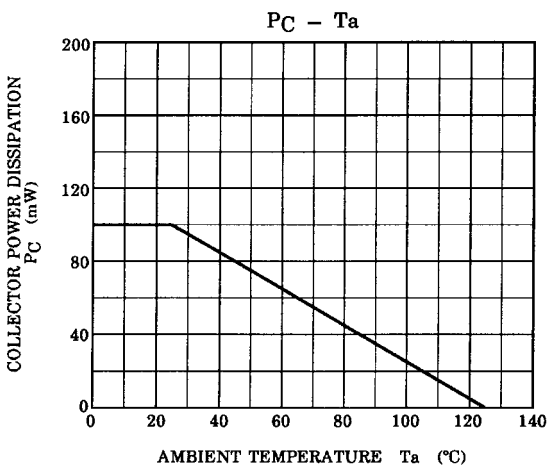
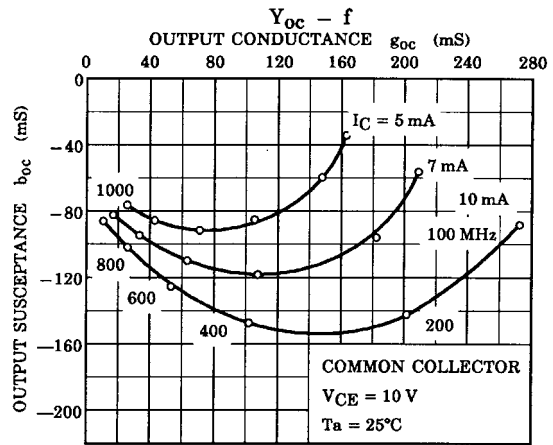
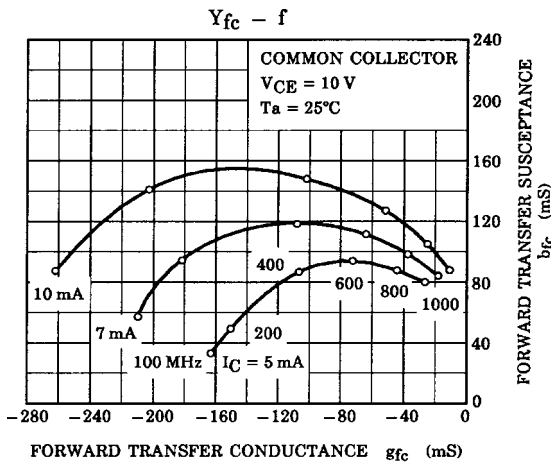
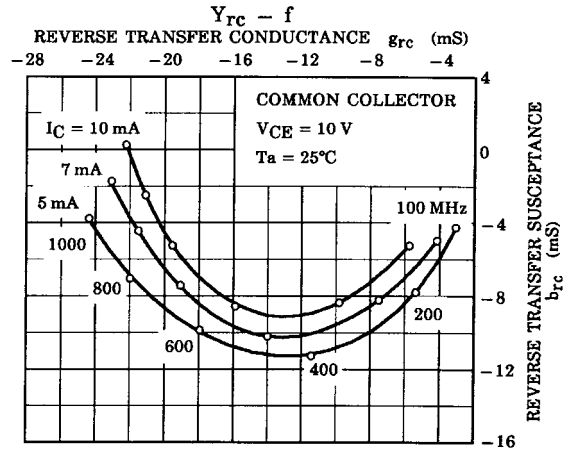
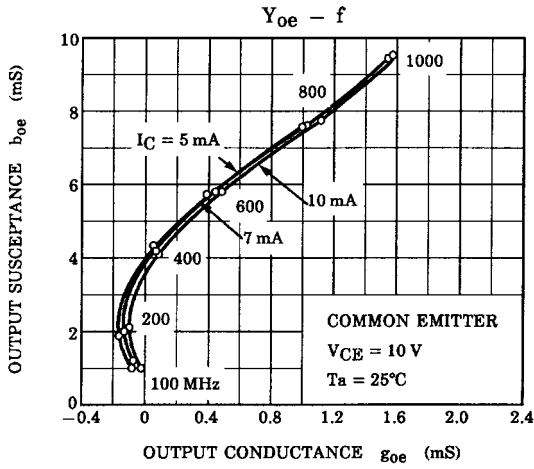
### Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = 10\text{ V}, I_E = 0$	—	—	0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 2\text{ V}, I_C = 0$	—	—	1.0	$\mu\text{A}$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1\text{ mA}, I_B = 0$	12	—	—	V
DC current gain	$h_{FE}$	$V_{CE} = 10\text{ V}, I_C = 5\text{ mA}$	35	—	130	
Transition frequency	$f_T$	$V_{CE} = 10\text{ V}, I_C = 10\text{ mA}$	2.6	4	—	GHz
Output capacitance	$C_{ob}$	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	1.05	1.35	pF
Collector-base time constant	$C_{c-rbb'}$	$V_{CB} = 10\text{ V}, I_C = 5\text{ mA}, f = 30\text{ MHz}$	—	4.5	9.0	ps

### Marking







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