TOSHIBA Transistor Silicon NPN Epitaxial Planar Type

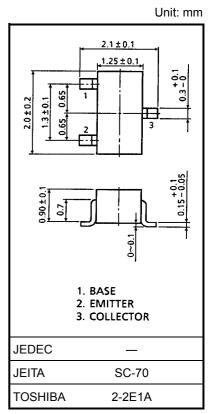
# 2SC4247

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 <sub>CEO</sub>	12	V
Emitter-base voltage	V <sub>EBO</sub>	3	V
Base current	Ι <sub>Β</sub>	15	mA
Collector current	IC	30	mA
Collector power dissipation	PC	100	mW
Junction temperature	Tj	125	°C
Storage temperature range	T <sub>stg</sub>	-55~125	°C

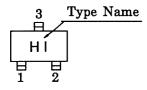


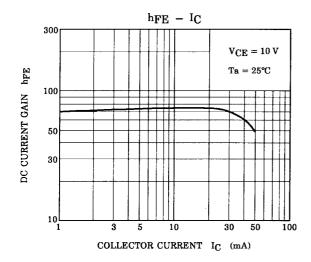
Weight: 0.006 g (typ.)

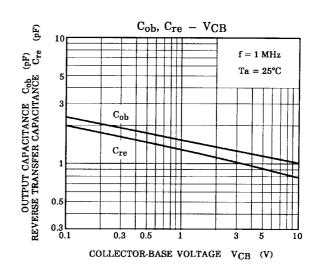
### **Electrical Characteristics (Ta = 25°C)**

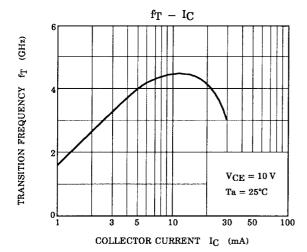
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I <sub>CBO</sub>	$V_{CB} = 10 \text{ V}, I_{E} = 0$			0.1	μΑ
Emitter cut-off current	I <sub>EBO</sub>	$V_{EB} = 2 \text{ V}, I_{C} = 0$			1.0	μΑ
Collector-emitter breakdown voltage	V (BR) CEO	$I_C = 1 \text{ mA}, I_B = 0$	12		_	V
DC current gain	h <sub>FE</sub>	$V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$	35	_	130	
Transition frequency	f <sub>T</sub>	$V_{CE} = 10 \text{ V}, I_{C} = 10 \text{ mA}$	2.6	4	_	GHz
Output capacitance	C <sub>ob</sub>	$V_{CB} = 10 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$	_	1.05	1.35	pF
Collector-base time constant	C <sub>c</sub> .rbb'	$V_{CB} = 10 \text{ V}, I_{C} = 5 \text{ mA}, f = 30 \text{ MHz}$	_	4.5	9.0	ps

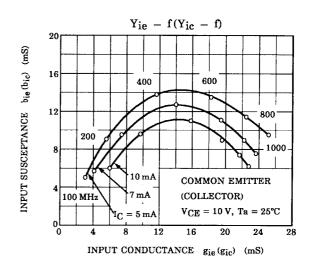
## Marking

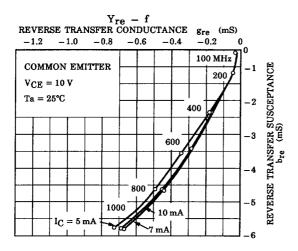


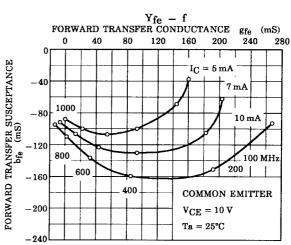




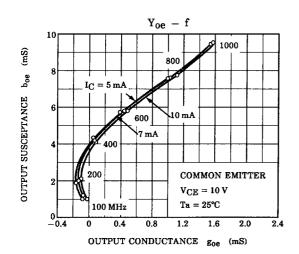


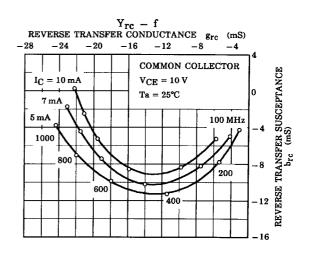


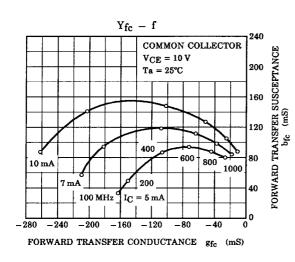


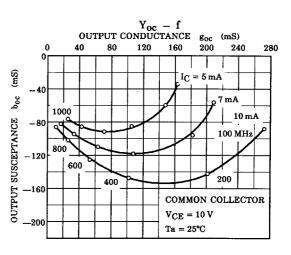


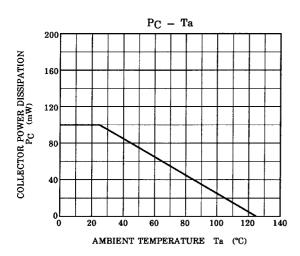
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