

# 2SC2471

Silicon NPN Epitaxial

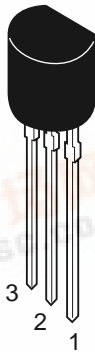
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## Application

- UHF Amplifier
- UHF TV Tuner, Local oscillator

## Outline

TO-92 (2)



1. Base
2. Emitter
3. Collector

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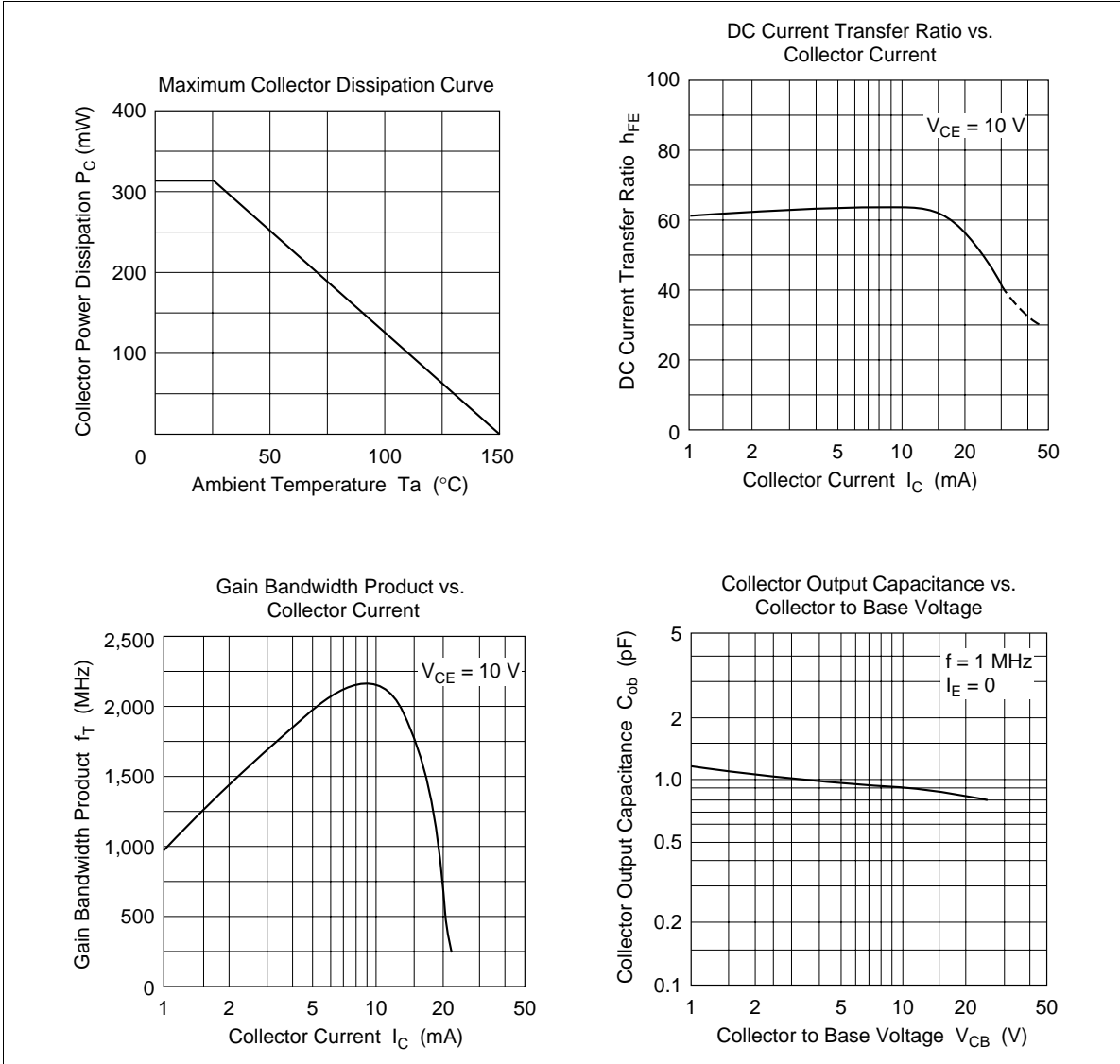
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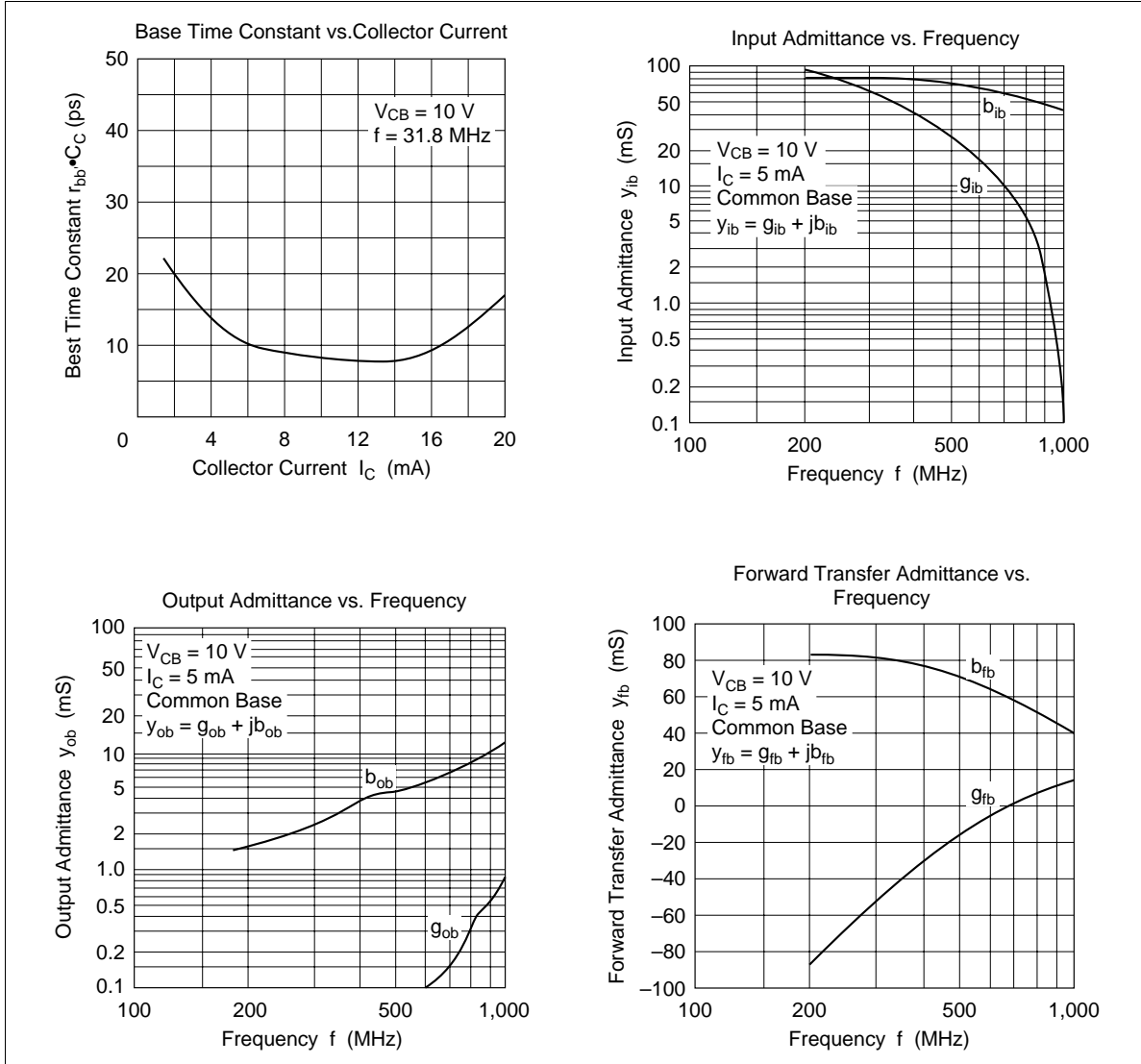
### Absolute Maximum Ratings (Ta = 25°C)

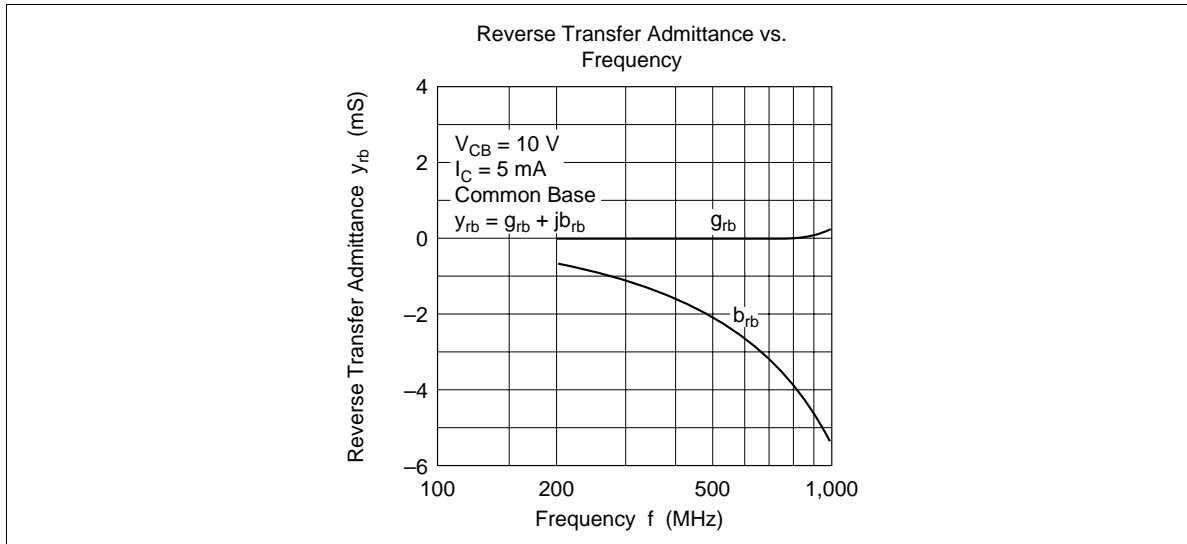
Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	30	V
Collector to emitter voltage	$V_{CEO}$	30	V
Emitter to base voltage	$V_{EBO}$	3	V
Collector current	$I_C$	50	mA
Collector power dissipation	$P_C$	310	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

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

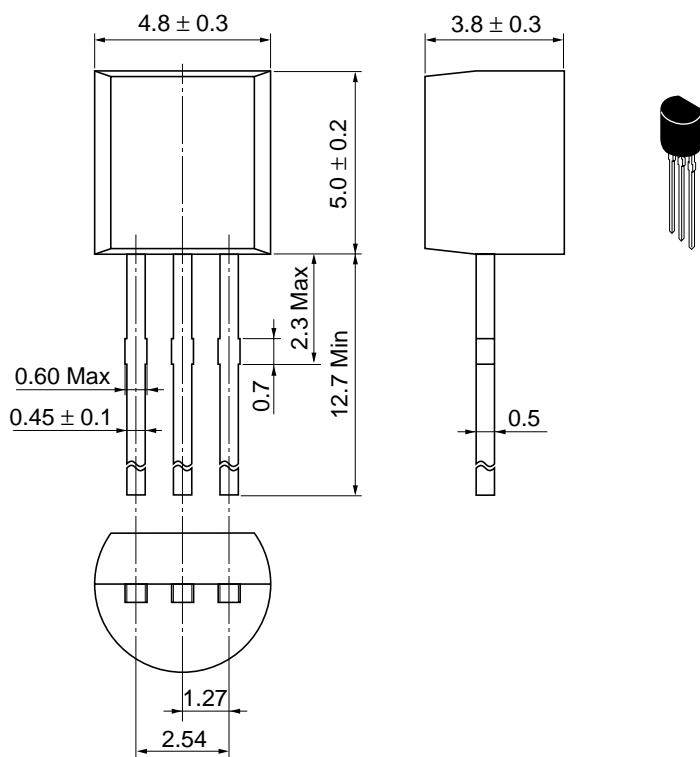
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	30	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	30	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	3	—	—	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	100	nA	$V_{CB} = 24 \text{ V}, I_E = 0$
Emitter cutoff current	$I_{EBO}$	—	—	100	nA	$V_{EB} = 2 \text{ V}, I_C = 0$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	300	mV	$I_C = 10 \text{ mA}, I_B = 5 \text{ mA}$
Base to emitter voltage	$V_{BE}$	—	—	0.95	V	$V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$
DC current transfer ratio	$h_{FE}$	20	—	—		$V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$
Gain bandwidth product	$f_T$	1000	2000	—	MHz	$V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$
Collector output capacitance	$C_{ob}$	—	0.9	1.5	pF	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$
Base time constant	$r_{bb'} \cdot C_C$	—	12	20	ps	$V_{CB} = 10 \text{ V}, I_C = 5 \text{ mA}, f = 31.8 \text{ MHz}$







Unit: mm



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