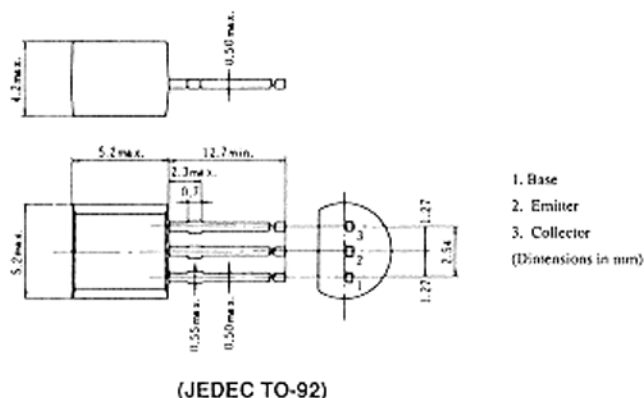


2SC2471

SILICON NPN EPITAXIAL

UHF AMPLIFIER

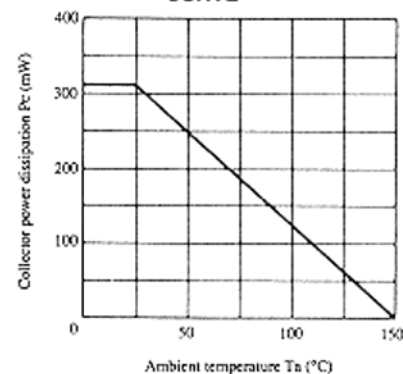
UHF TV TUNER LOCAL OSCILLATOR



■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SC2471	Unit
Collector to base voltage	V _{CB0}	30	V
Collector to emitter voltage	V _{CE0}	30	V
Emitter to base voltage	V _{EB0}	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

MAXIMUM COLLECTOR DISSIPATION CURVE

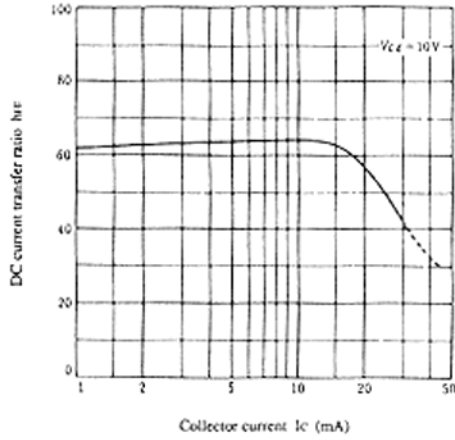


■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

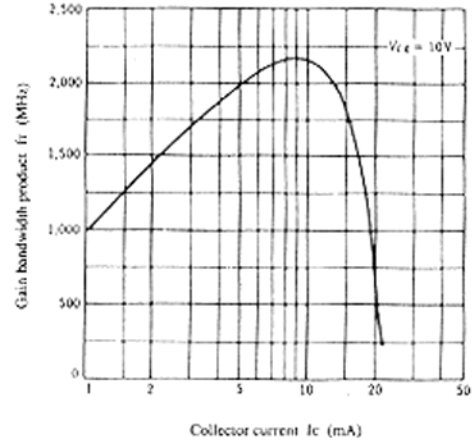
Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	V _{(BR)CBO}	I _c = 10μA, I _E = 0	30	—	—	V
Collector to emitter breakdown voltage	V _{(BR)CEO}	I _c = 1 mA, R _{BE} = ∞	30	—	—	V
Emitter to base breakdown voltage	V _{(BR)EBO}	I _E = 10μA, I _c = 0	3	—	—	V
Collector cutoff current	I _{CBO}	V _{CB} = 24V, I _E = 0	—	—	100	nA
Emitter cutoff current	I _{EBO}	V _{EB} = 2V, I _c = 0	—	—	100	nA
Collector to emitter saturation voltage	V _{CE(sat)}	I _c = 10mA, I _B = 5mA	—	—	300	mV
Base to emitter voltage	V _{BE}	V _{CE} = 10V, I _c = 5mA	—	—	0.95	V
DC current transfer ratio	h _{FE}	V _{CE} = 10V, I _c = 5mA	20	—	—	
Gain bandwidth product	f _r	V _{CE} = 10V, I _c = 5mA	1000	2000	—	MHz
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz	—	0.9	1.5	pF
Base time constant	τ _{be} · C _c	V _{CB} = 10V, I _c = 5mA, f = 31.8MHz	—	12	20	ps

2SC2471

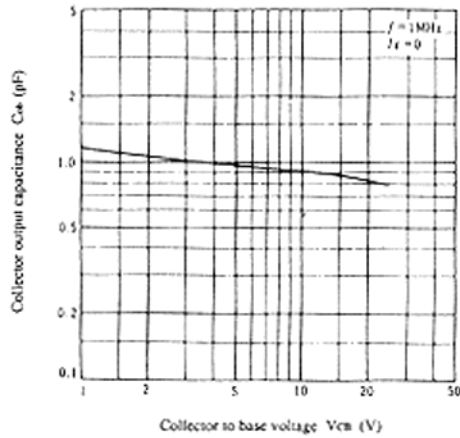
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



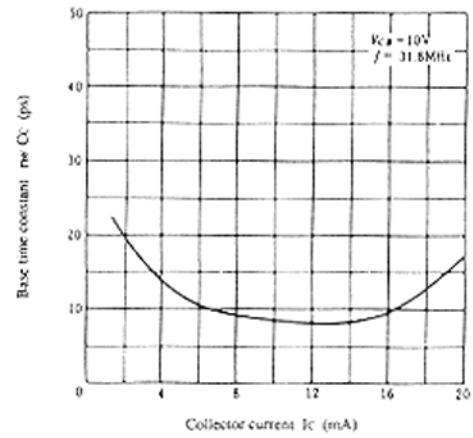
GAIN BANDWIDTH PRODUCT VS. COLLECTOR CURRENT



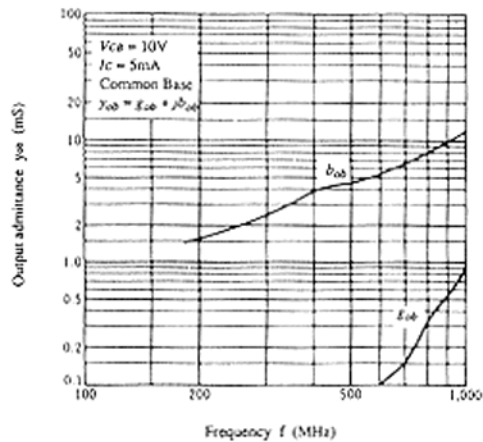
COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE



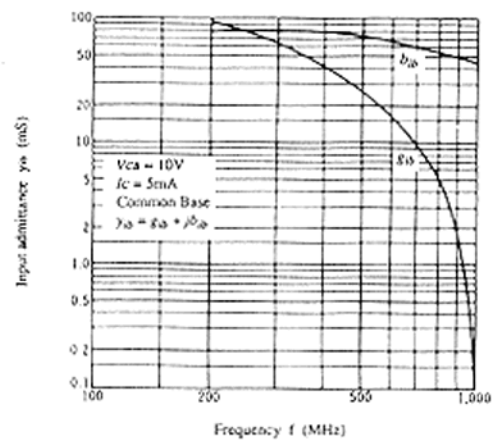
BASE TIME CONSTANT rbc (ps) VS. COLLECTOR CURRENT



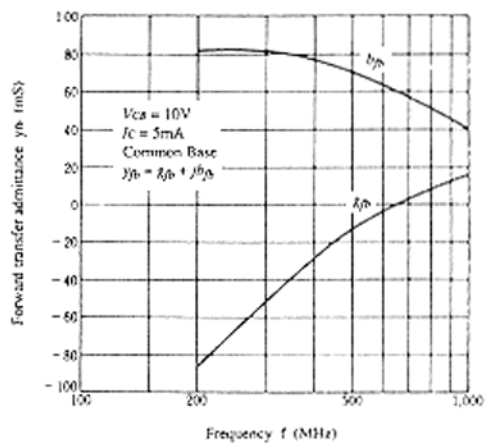
OUTPUT ADMITTANCE VS. FREQUENCY



INPUT ADMITTANCE VS. FREQUENCY



FORWARD TRANSFER ADMITTANCE VS. FREQUENCY



REVERSE TRANSFER ADMITTANCE VS. FREQUENCY

