

2SC4967

Silicon NPN Bipolar Transistor

Application

VHF & UHF wide band amplifire

Features

- Low Ron and high performance for RF switch.
- Capable of high density mounting.

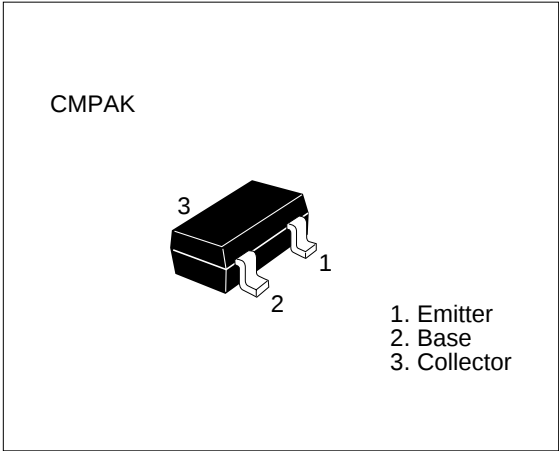


Table 1 Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	12	V
Collector to emitter voltage	V_{CEO}	8	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	I_C	100	mA
Collector power dissipation	P_C	100	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

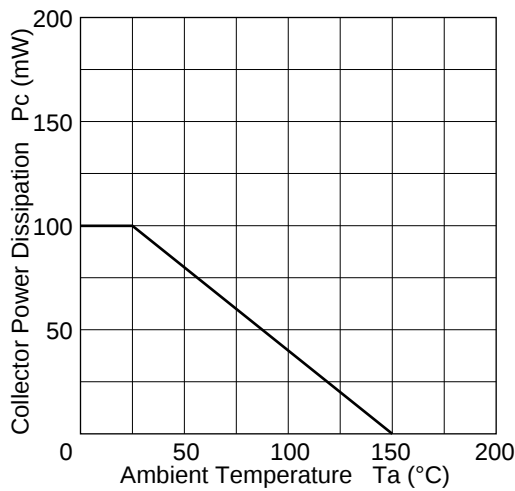
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Table 2 Electrical Characteristics (Ta = 25°C)

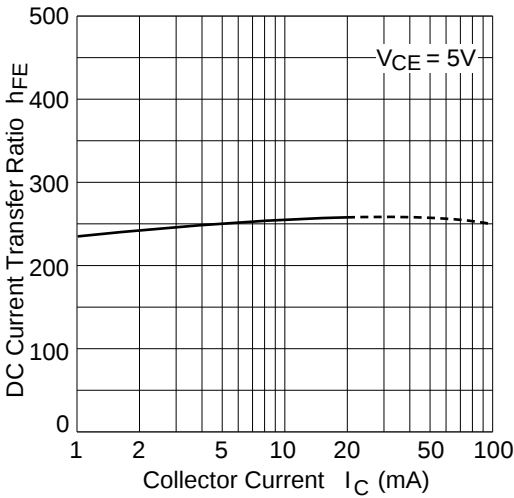
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	12	—	—	V	$I_C = 10\ \mu A$ $I_E = 0$
Collector cutoff current	I_{CBO}	—	—	10	μA	$V_{CB} = 10\ V$, $I_E = 0$
	I_{CEO}	—	—	1	mA	$V_{CE} = 8\ V$, $R_{BE} = \infty$
Emitter cutoff current	I_{EBO}	—	—	10	μA	$V_{EB} = 3\ V$, $I_C = 0$
DC current transfer ratio	h_{FE}	100	250	—		$V_{CE} = 5\ V$, $I_C = 5\ mA$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	150	200	mV	$I_C = 80\ mA$ $I_B = 5\ mA$
Output capacitance	Cob	—	1.9	2.6	pF	$V_{CB} = 5\ V$, $I_E = 0$, $f = 1\ MHz$
On resistance	Ron	—	1.2	—	Ω	$I_B = 2.5\ mA$ $f = 1\ kHz$

Note: Marking of 2SC4967 is "YW—".

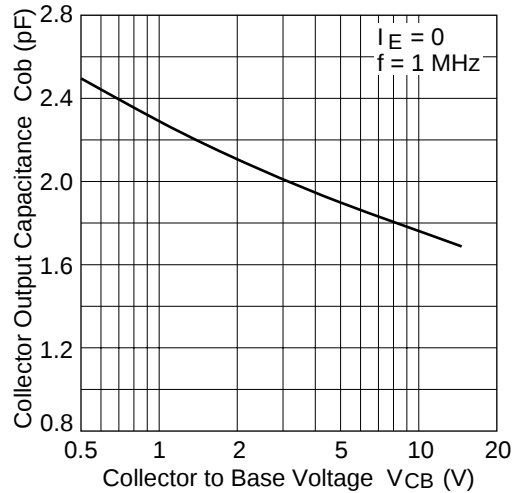
Collector power dissipation curve



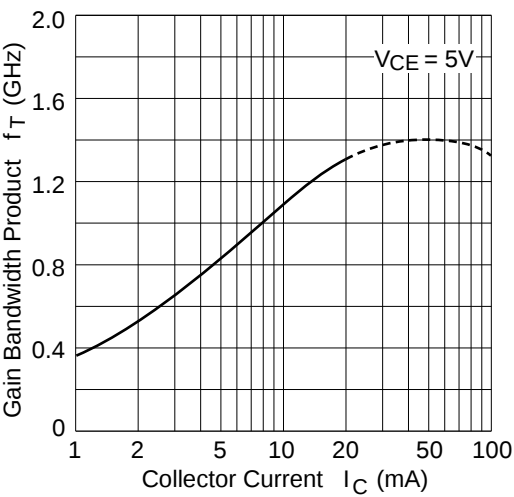
DC current transfer ratio vs. collector current



Collector output capacitance vs. collector to base voltage

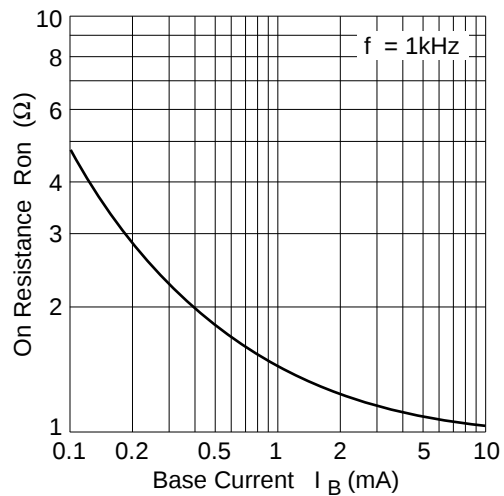


Gain bandwidth product vs. collector current

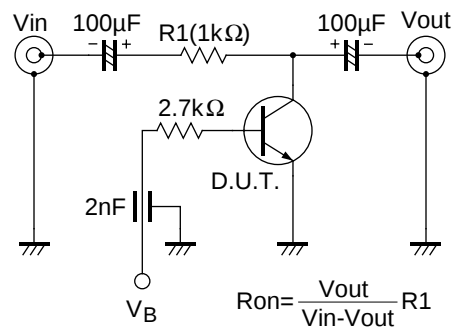


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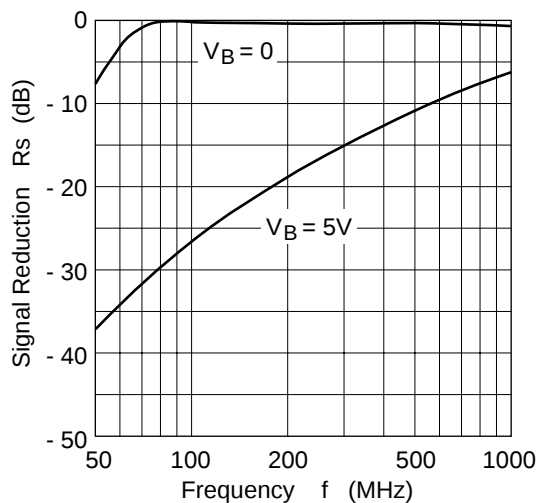
On resistance vs. base current



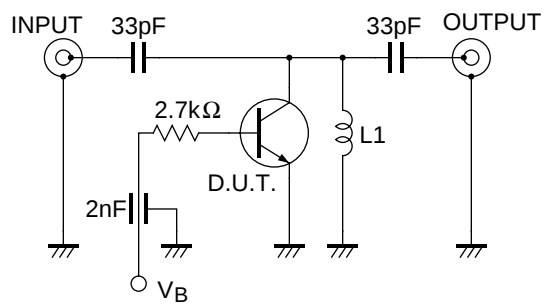
Ron test circuit



Signal reduction vs. frequency

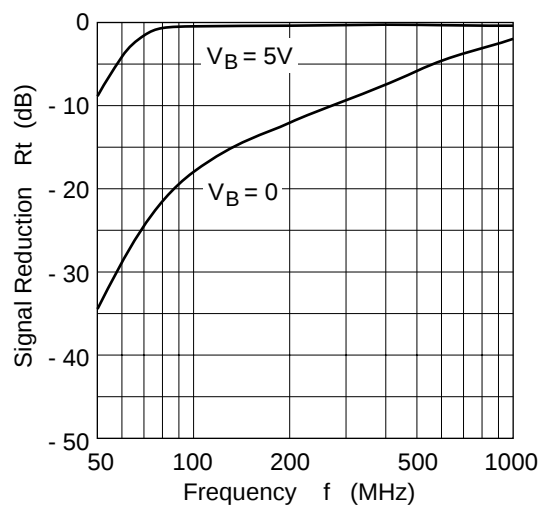


Signal reduction test circuit

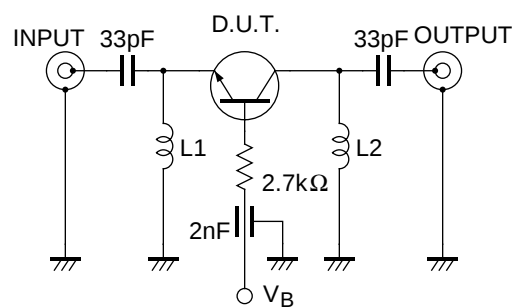


$L1$: Inside dia ϕ 3 mm ,
 ϕ 0.5 mm Enameled Copper Wire 7 Turns.

Signal reduction vs. frequency



Signal reduction test circuit



L1, L2 : Inside dia $\varnothing$ 3 mm ,
 $\varnothing$ 0.5 mm Enameled Copper Wire 7 Turns.