

PNP Silicon Planar Transistor

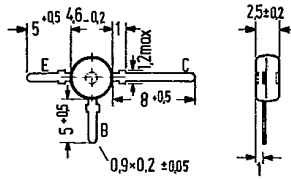
BF 967

SIEMENS AKTIENGESELLSCHAFT

for input stages up to 900 MHz

BF 967 is a PNP silicon UHF planar transistor with passivated surface in a low-capacitance plastic package similar to TO 119 (50 B 3 DIN 41867). The transistor is particularly suitable for use in low noise, gain-controlled input stages up to 900 MHz in tuners with diode tuning.

Type	Ordering code
BF 967	Q62702-F503



Approx. weight 0.26 g Dimensions in mm

Maximum ratings

Collector-emitter voltage	$-V_{CEO}$	30	V
Collector-base voltage	$-V_{CBO}$	30	V
Emitter-base voltage	$-V_{EBO}$	3	V
Collector current	$-I_C$	20	mA
Base current	$-I_B$	5	mA
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55 to +150	°C
Total power dissipation	P_{tot}	160	mW

Thermal resistance

Junction to ambient air	R_{thJA}	600	K/W
-------------------------	------------	-----	-----

Static characteristics ($T_{amb} = 25^{\circ}\text{C}$)

Collector cutoff current

($-V_{CBO} = 15\text{ V}$)

$-I_{CBO}$	1 (<100)	nA
------------	----------	----

DC current gain

($-V_{CE} = 10\text{ V}; -I_C = 1\text{ mA}$)

h_{FE}	60 (>15)	-
----------	----------	---

Emitter cutoff current

($-I_C = 0; -V_{EB} = 1\text{ V}$)

$-I_{EBO}$	<100	nA
------------	------	----

Dynamic characteristics ($T_{amb} = 25^{\circ}\text{C}$)

Transition frequency

($-I_C = 3\text{ mA}; -V_{CE} = 10\text{ V}; f = 100\text{ MHz}$)

f_T	950	MHz
-------	-----	-----

Reverse transfer capacitance

($-V_{CE} = 1\text{ V}; f = 1\text{ MHz}$)

C_{12b}	80	fF
-----------	----	----

Collector-base capacitance

($-V_{CB} = 10\text{ V}; f = 1\text{ MHz}$)

$-C_{CBO}$	0.42	pF
------------	------	----

Power gain

($-I_C = 3\text{ mA}; -V_{CB} = 10\text{ V}; f = 800\text{ MHz};$ $R_L = 500\ \Omega$)

G_{pb}	13	dB
----------	----	----

Noise figure

($-I_C = 3\text{ mA}; -V_{CB} = 10\text{ V}; f = 800\text{ MHz};$ $R_g = 60\ \Omega$)

NF	4	dB
------	---	----