

PNP Silicon Planar Transistor

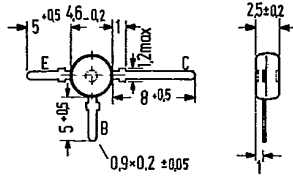
BF 967

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
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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