

T-31-15

PNP Silicon Planar Transistor

BF 979 S

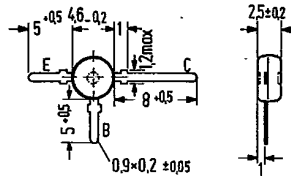
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BF 979 S is a PNP silicon planar transistor in low-capacitance plastic package similar to TO 119 (50 B 3 DIN 41867).

The transistor is particularly suitable for use in uncontrolled UHF and VHF input stages featuring low cross modulation.

Type	Ordering code
BF 979 S	Q62702-F610



Approx. weight 0.25 g Dimensions in mm

Maximum ratings

Collector-emitter voltage	$-V_{CEO}$	25	V
Collector-base voltage	$-V_{CBS}$	30	V
Emitter-base voltage	$-V_{EBO}$	3	V
Collector current	$-I_C$	50	mA
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-50 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 ($-V_{CBO} = 20\text{ V}$)	$-I_{CBO}$	<100	nA
DC power gain ($-I_C = 10\text{ mA}$; $-V_{CE} = 10\text{ V}$)	h_{FE}	>20	-

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

Transition frequency ($-I_C = 10\text{ mA}$; $-V_{CE} = 10\text{ V}$; $f = 100\text{ MHz}$)	f_T	1.6	GHz
Reverse transfer capacitance ($-V_{CE} = 1\text{ V}$; $f = 1\text{ MHz}$)	C_{12b}	90	fF
Collector-base capacitance ($-V_{CB} = 10\text{ V}$; $f = 1\text{ MHz}$)	$-C_{CBO}$	0.55	pF
Noise figure ($-I_C = 10\text{ mA}$; $-V_{CB} = 10\text{ V}$; $f_M = 200\text{ MHz}$; $R_g = 60\ \Omega$)	NF	3	dB
Noise figure ($-I_C = 10\text{ mA}$; $-V_{CB} = 10\text{ V}$; $f_M = 800\text{ MHz}$; $R_g = 60\ \Omega$)	NF	<4.5	dB
Power gain ($-I_C = 10\text{ mA}$; $-V_{CB} = 10\text{ V}$; $f_M = 800\text{ MHz}$; $R_L = 500\ \Omega$)	G_{pb}	16.5	dB
Interference voltage ¹⁾ ($-I_C = 10\text{ mA}$; $-V_{CB} = 10\text{ V}$; $f_M = 200\text{ MHz}$; $R_g = 75\ \Omega$)	$V_{int\ 1\%}$	230	mV
Collector current for G_{pbmax} ($-V_{CB} = 10\text{ V}$; $f_M = 800\text{ MHz}$; $R_L = 500\ \Omega$)	I_C	>10	mA

1) $V_{int\ 1\%}$ is the rms value of half the EMF of a 100% sine modulated TV carrier with $R_g = 75\ \Omega$, which causes 1% AM on the useful carrier.