

25C D ■ 8235605 0004521 7 ■ SIEG

T-31-17

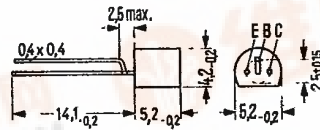
NPN Silicon RF Transistor

BF 562

SIEMENS AKTIENGESELLSCHAFT 1 D

BF 562 is an NPN silicon RF transistor in TO 92 plastic package (10 A 3 DIN 41868).
The transistor is particularly suitable for controllable VHF input stages in TV tuners.

Type	Ordering code
BF 562	Q62702-F542



Mounting instruction: Fixing hole dia 0.6
Approx. weight 0.25 g Dimensions in mm

Maximum ratings ($T_{amb} = 25^{\circ}\text{C}$)

Collector-emitter voltage	V_{CE0}	20	V
Collector-base voltage	V_{CBO}	30	V
Emitter-base voltage	V_{EBO}	3	V
Collector current	I_C	20	mA
Junction temperature	T_j	150	$^{\circ}\text{C}$
Storage temperature range	T_{stg}	-55 to +150	$^{\circ}\text{C}$
Total power dissipation ($T_{amb} \leq 45^{\circ}\text{C}$)	P_{tot}	250	mW

Thermal resistance

Junction to ambient air	R_{thJA}	≤ 420	K/W
-------------------------	------------	------------	-----

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

Base current

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

I_B	≤ 150	μA
I_B	≤ 2	mA

($I_C = 10 \text{ mA}$; $V_{CE} = 7 \text{ V}$)

Collector-emitter breakdown voltage

($I_C = 1 \text{ mA}$)

$V_{(BR)CEO}$	≥ 20	V
---------------	-----------	------------

Collector-base breakdown voltage

($I_C = 10 \mu\text{A}$)

$V_{(BR)CBO}$	≥ 30	V
---------------	-----------	------------

Emitter-base breakdown voltage

($I_E = 10 \mu\text{A}$)

$V_{(BR)EBO}$	≥ 3	V
---------------	----------	------------

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

Transition frequency

($I_C = 2.5 \text{ mA}$; $V_{CE} = 10 \text{ V}$; $f = 100 \text{ MHz}$)

f_T	600	MHz
-------	-----	--------------

Power gain

($I_C = 2.5 \text{ mA}$; $V_{CE} = 10 \text{ V}$; $f = 200 \text{ MHz}$; $R_g = 60 \Omega$; $R_L = 920 \Omega$)

G_{pb}	16	dB
----------	----	-------------

Noise figure

($I_C = 2.5 \text{ mA}$; $V_{CE} = 10 \text{ V}$; $f = 200 \text{ MHz}$; $R_g = 60 \Omega$)

NF	3	dB
------	---	-------------

Reverse transfer capacitance

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

$-C_{12e}$	0.65	pF
------------	------	-------------

Reverse transfer capacitance

($V_{BE} = 0$; $V_{CB} = 10 \text{ V}$; $f = 1 \text{ MHz}$)

$-C_{12b}$	0.12	pF
------------	------	-------------