

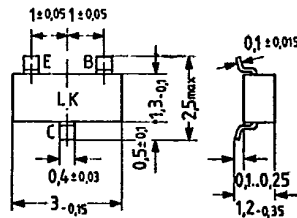
PNP Silicon Planar Transistor

BF 568

SIEMENS AKTIENGESELLSCHAFT

BF 568 is a PNP silicon planar transistor with passivated surface in TO 236 plastic package (23 A 3 DIN 41869). The transistor is particularly suitable for use in low-noise gain-controlled VHF and UHF input stages of film circuits. The transistor is marked with the code letters "LK".

Type	Mark	Ordering code
BF 568	LK	Q62702-F626



Approx. weight 0.02 g Dimensions in mm

Maximum ratings

Collector-emitter voltage	$-V_{CEO}$	35	V
Collector-base voltage	$-V_{CBO}$	40	V
Emitter-base voltage	$-V_{EBO}$	3	V
Collector current	$-I_C$	30	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 ($T_{SB} = 60^\circ\text{C}$)	P_{tot}	220	mW

Thermal resistance

Junction to ambient air	R_{thJA}	< 500	K/W
Junction to substrate back ¹⁾	R_{thJSB}	< 410	K/W

1) Ceramic substrate 0.7 mm 2.5 cm² area

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

Collector cutoff current ($-V_{CBO} = 15\text{ V}$)
 Emitter cutoff current ($-V_{EBO} = 3\text{ V}$)
 DC current gain ($-V_{CE} = 10\text{ V}; -I_C = 1\text{ mA}$)

$-I_{CBO}$	1 (<100)	nA
$-I_{EBO}$	<10	μA
h_{FE}	60 (>25)	-

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

Transition frequency
 ($-I_C = 3\text{ mA}; -V_{CE} = 10\text{ V}; f = 100\text{ MHz}$)
 Collector-base capacitance
 ($-V_{CB} = 10\text{ V}; f = 1\text{ MHz}$)
 Power gain
 ($-I_C = 3\text{ mA}; -V_{CB} = 10\text{ V}; f = 800\text{ MHz}, R_L = 500\ \Omega$)
 Noise figure
 ($-I_C = 3\text{ mA}; -V_{CB} = 10\text{ V}; R_g = 60\ \Omega; f = 800\text{ MHz}$)
 ($-I_C = 3\text{ mA}; -V_{CB} = 10\text{ V}; R_g = 60\ \Omega; f = 200\text{ MHz}$)
 Collector current for G_{pbmax}
 ($V_{CC} = 12\text{ V}; R_{CC} = 1\text{ k}\Omega; f = 800\text{ MHz}; R_L = 500\ \Omega$)

f_T	1.1	GHz
C_{CBO}	0.35	pF
G_{pb}	14.5	dB
NF	3 (<4)	dB
NF	2.5	dB
I_C	3.5	mA

