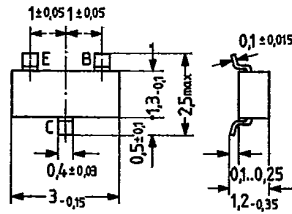


SIEMENS AKTIENGESELLSCHAFT 539 D _____

BF 767 is a PNP silicon planar transistor including 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 for film circuits. The transistor is marked on its package with the code letters "LG".

Type	Mark	Ordering code
BF 767	LG	Q62702-F553



Approx. weight 0.02 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	125	°C
Storage temperature range	T_{stg}	-55 to +125	°C
Total power dissipation ($T_{SB} = 65^\circ\text{C}$)	P_{tot}	200	mW

Thermal resistance

Junction to ambient air	R_{thJA}	< 500	K/W
Junction to substrate back ¹⁾	R_{thJSB}	< 400	K/W

1) Ceramic substrate 0.7 mm; 2.5 cm² area

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

Collector cutoff current ($-V_{CBO} = 15\text{ V}$)	$-I_{CBO}$	<100	nA
DC current gain ($-V_{CE} = 10\text{ V}; -I_C = 3\text{ mA}$)	h_{FE}	60 (>15)	-
Emitter cutoff current ($-I_C = 0; -V_{EB} = 3\text{ V}$)	$-I_{EBO}$	<10	μA

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
Collector-base capacitance ($-V_{CB} = 10\text{ V}; f = 1\text{ MHz}$)	C_{CBO}	0.32	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
Collector current ¹⁾ ($f = 800\text{ MHz}; V_{CC} = 12\text{ V}; R_C = 1\text{ k}\Omega; R_g = 60\ \Omega; R_L = 500\ \Omega$)	I_C	7	mA
Noise figure ($-I_C = 3\text{ mA}; -V_{CB} = 10\text{ V}; R_g = 60\ \Omega; f = 800\text{ MHz}$)	NF	3.7	dB
($f = 200\text{ MHz}$)	NF	2.9	dB

for 30 dB regulation to minor values

