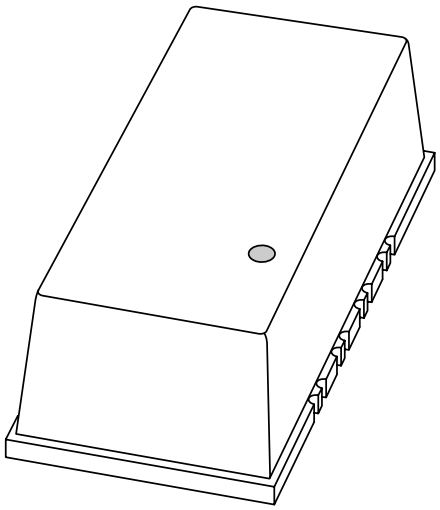
DATA SHEET



BGS67A
65 MHz, 25.5 dB gain reverse amplifier

Product specification
Supersedes data of 2002 Jun 06

2002 Sep 06

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65 MHz, 25.5 dB gain reverse amplifier BGS67A

FEATURES

- Extremely low noise
- Excellent linearity
- Silicon nitride passivation
- Rugged construction
- Gold metallization ensures excellent reliability.

APPLICATIONS

- Reverse amplifier in two-way CATV systems in the 5 to 65 MHz frequency range.

DESCRIPTION

The BGS67A is a hybrid high dynamic range amplifier module in a leadless SOT567A package, operating at a supply voltage of 12 V.

PINNING - SOT567A

PIN	DESCRIPTION
1	input
2	common
3	provision
4	$+V_B$
5	output
6	provision
7	common
8	$+V_B$

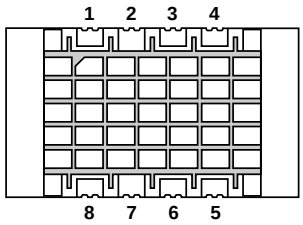


Fig.1 Simplified outline.

QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
G_p	power gain	f = 10 MHz	25	26	dB
I_{tot}	total current consumption (DC)	V_B = 12 V	75	95	mA

LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
V_i	RF input voltage	–	55	dBmV
T_{stg}	storage temperature	–40	+100	°C
T_{mb}	operating mounting base temperature	–20	+100	°C

CHARACTERISTICS

Bandwidth 5 to 65 MHz; V_B = 12 V; T_{mb} = 30 °C; $Z_S = Z_L$ = 75 Ω.

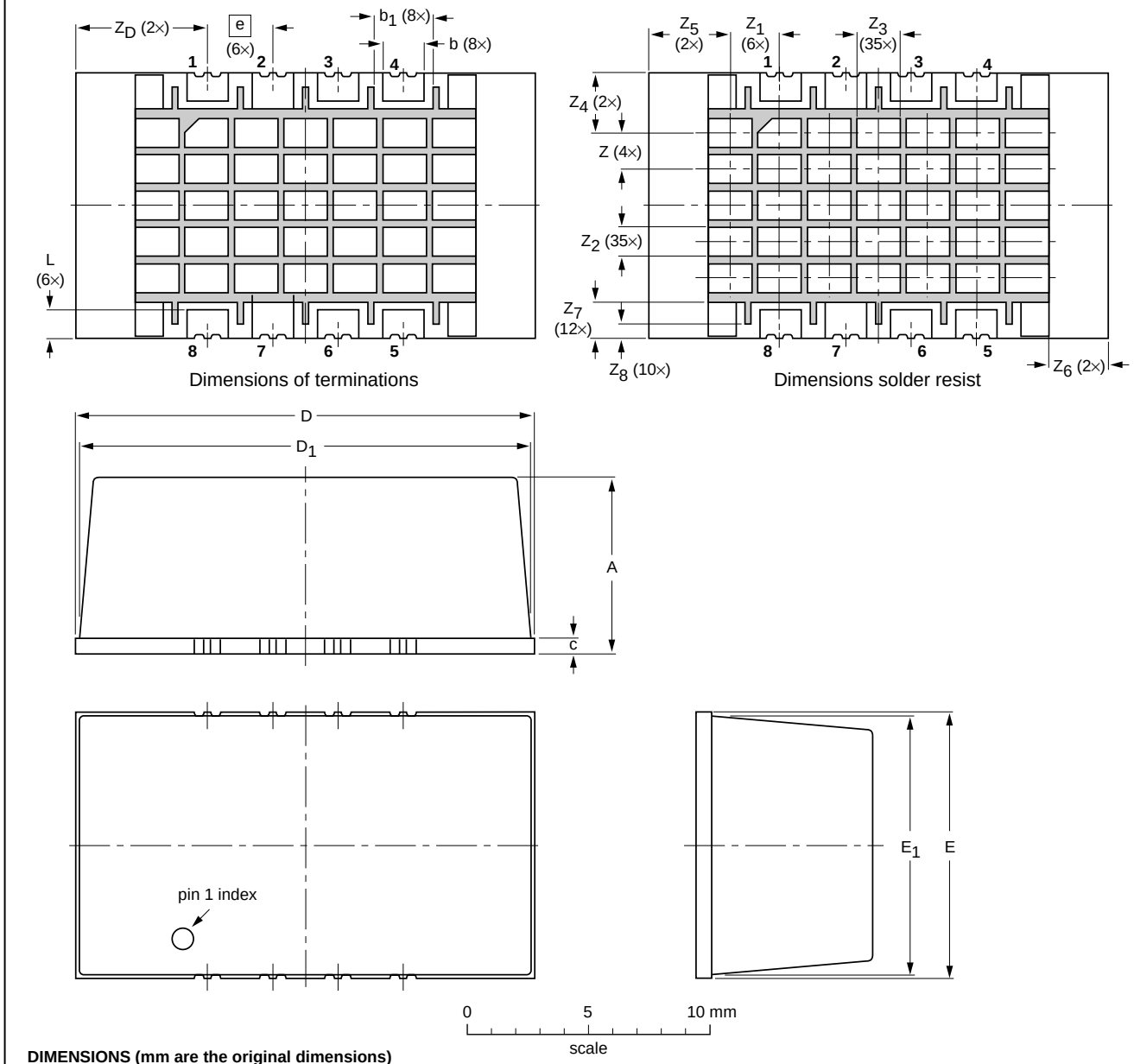
SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
G_p	power gain	f = 10 MHz	25	26	dB
SL	slope straight line	f = 5 to 65 MHz	–0.1	+0.6	dB
FL	flatness of frequency response	f = 5 to 65 MHz	–	±0.2	dB
s_{11}	input return losses	f = 5 to 65 MHz	20	–	dB
s_{22}	output return losses	f = 5 to 65 MHz	20	–	dB
CTB	composite triple beat	4 channels flat; V_o = 50 dBmV; measured at 25 MHz	–	–64	dB
X_{mod}	cross modulation	4 channels flat; V_o = 50 dBmV; measured at 25 MHz	–	–54	dB
d_2	second order distortion	note 1	–	–70	dB
NF	noise figure	f = 65 MHz	–	3.5	dB
I_{tot}	total current consumption	note 2	75	95	mA

Notes

1. f_p = 19 MHz; V_p = 50 dBmV; f_q = 31 MHz; V_q = 50 dBmV; measured at $f_p + f_q$ = 50 MHz.
2. The module normally operates at V_B = 12 V, but is able to withstand supply transients up to 30 V.

PACKAGE OUTLINE

Leadless surface mounted package; plastic cap; 8 terminations **SOT567A**



DIMENSIONS (mm are the original dimensions)

UNIT	A	b	b_1	c	D	D_1	E	E_1	e	L	Z	Z_1	Z_2	Z_3	Z_4	Z_5	Z_6	Z_7	Z_8	Z_D
mm	7.6 7.1	1.8 1.6	2.55 2.35	0.71 0.57	19.3 18.7	18.85 18.55	11.3 10.7	10.85 10.55	2.7	1.3 1.1	1.6 1.4	2.15 1.95	1.3 1.1	1.9 1.7	2.6 2.4	3.45 3.25	2.55 2.35	1.6 1.4	0.7 0.5	5.55 5.35

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	JEITA			
SOT567A						~~02-02-28~~ 02-06-06

DATA SHEET STATUS

DATA SHEET STATUS[1]	PRODUCT STATUS[2]	DEFINITIONS
Objective data	Development	This data sheet contains data from the objective specification for product development. Philips Semiconductors reserves the right to change the specification in any manner without notice.
Preliminary data	Qualification	This data sheet contains data from the preliminary specification. Supplementary data will be published at a later date. Philips Semiconductors reserves the right to change the specification without notice, in order to improve the design and supply the best possible product.
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2. The product status of the device(s) described in this data sheet may have changed since this data sheet was published. The latest information is available on the Internet at URL http://www.semiconductors.philips.com.

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CAUTION
This product is supplied in anti-static packing to prevent damage caused by electrostatic discharge during transport and handling. For further information, refer to Philips specs.: SNW-EQ-608, SNW-FQ-302A and SNW-FQ-302B.

NOTES

NOTES

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