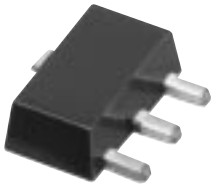
Surface Mount

Monolithic Amplifier

50Ω, Broadband, DC to 3 GHz

NEW!

GAL-S66



CASE STYLE : DF782

Features

- wide bandwidth, DC-2.5 GHz
- low noise figure, 2.7 dB typ.
- excellent package for heat dissipation, exposed metal bottom
- low thermal resistance for high reliability
- miniature SOT-89

Applications

- cellular
- PCS
- communication receivers & transmitters

Electrical Specifications @ 25°C

MODEL NO.	FREQ.* (GHz)	GAIN, dB Typical									MAXIMUM POWER, dBm @ 2 GHz			DYNAMIC RANGE @ 2 GHz		VSWR (:1) Typ.		MAXIMUM RATING**		DC OPERATING POWER @ Pin 3***				THERMAL RESIS-TANCE	PRICE $
		over frequency, GHz							Min. @ 2 GHz	†Flatness, dB			Output (1 dB Comp.)	Input (no dmg.)						Cur-rent (mA)	Volt			θjc, typ. °C/W	Qty. (25)
	f_L - f_U	0.1	1	2	3	4	6	8		DC-2 GHz	2-f_U GHz		Typ.	Min.		NF dB Typ.	IP3 dBm Typ.	In DC-3 GHz	Out DC-3 GHz	I mA	P mW		Typ	Min	Max		
													Medium Power												
GAL-S66	DC-3	22	20.3	17.3	15.5	—	—	—	15	±2.4	±0.5		2.8	1.0	13	2.7	18	1.25	1.7	50	200	16	3.5	3.0	4.0	136	.99

* Low frequency cutoff determined by external coupling capacitors.
** Permanent damage may occur if any of these limits are exceeded. These ratings are not intended for continuous normal operation.
*** Reliability predictions and normal operating conditions are applicable at current specified.
† Measured in test fixture P/N 90-6-20-26

f_U is the upper frequency for model as shown in the table.

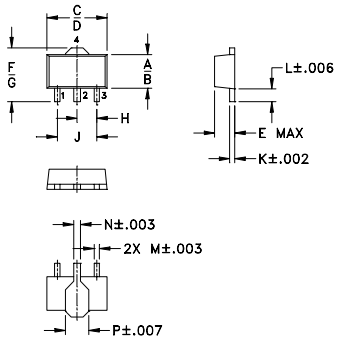
Maximum Ratings

Operating Temperature	-45°C to 85°C
Storage Temperature	-65°C to 150°C

Pin Configuration

RF IN	1
RF OUT	3
DC	3
GND EXT.	2

Outline Drawing

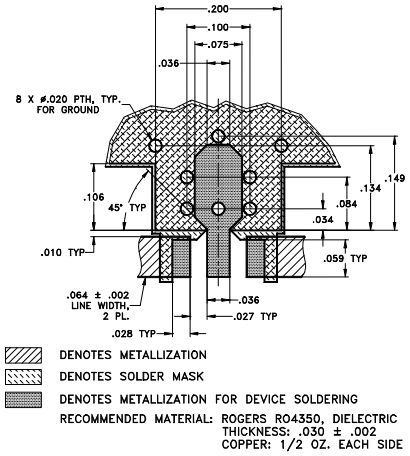


Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H
.102	.090	.181	.173	.063	.167	.155	.059
2.59	2.29	4.60	4.39	1.60	4.24	3.94	1.50

J	K	L	M	N	P	wt.
.118	.015	.041	.016	.019	.065	grams
3.00	0.38	1.04	0.41	0.48	1.65	.2

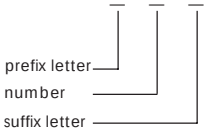
Required PCB Layout (PL-019)



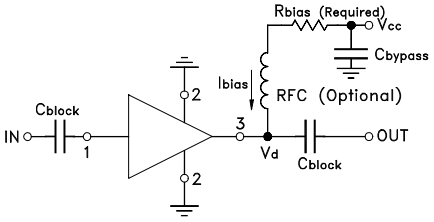
model identification

Model	marking (see note below)
GAL-S66	66

Note: Prefix letter (optional) designates assembly location. Suffix letters (optional) are for wafer identification.



Typical Biasing Configuration



R BIAS
"1%" Resistor Values (ohms) for Optimum Biasing

Vcc	GAL-S66
7	187
8	243
9	301
10	374
11	432
12	499
13	562
14	619
15	681
16	750
17	806
18	866
19	931
20	976

REV. OR
M76915
EE-8572/B
GAL-S66
RS/YB/FL
010518

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