

Surface Mount Monolithic Amplifier

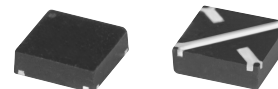
50Ω

50 to 2000 MHz

MAV-11A+
MAV-11A

Features

- medium gain
- output power, 18.5 dBm



CASE STYLE: DH820

Applications

- cellular
- cable
- defense communications
- UHF TV

**+ RoHS compliant in accordance
with EU Directive (2002/95/EC)**

See our web site for RoHS Compliance methodologies
and qualifications.

Electrical Specifications at 25°C

MODEL NO.	FREQ. (MHz)		GAIN (dB) Typical at MHz				MAXIMUM POWER (dBm)		DYNAMIC ⁵ RANGE		VSWR (:1) Typ.		ABSOLUTE MAXIMUM RATING ² (25°C)		DC OPERATING POWER at Pin 3		THERMAL RESISTANCE ³	PRICE \$
	f _L	f _U	100	1000	2000	Note 1 Min.	Output ⁵ (1 dB Compr.) Typ.	Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	I (mA)	P (mW)	Current (mA)	Device Volt ⁴ Typ.	°C/W	Qty. (30)
MAV-11A(+)	50	2000	12.5	11.5	10.2	9.0	+18.5	+13	4.8	+35	1.4	1.1	80	550	60	5.5	130	1.29

NOTES:

1. Minimum gain at highest frequency at full temperature range.
2. Permanent damage may occur if any of these limits are exceeded.
3. Thermal resistance θ_{JA} is from hottest junction in device to mounting surface of leads.
4. Device voltage is 4.8 min. and 6.0 max. Temperature coefficient -4.6 mV/°C
5. At 1000 MHz.

Maximum Ratings

Operating Temperature -25°C to 85°C

Storage Temperature -65°C to 150°C

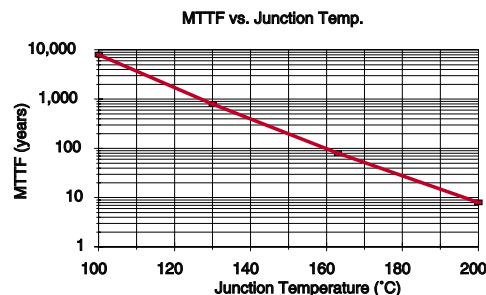
Junction Temperature 200°C

Pin Connections

RF IN	1
RF OUT	3
DC	3
GROUND	2,4

Model Identification

Model	Marking
MAV-11A	11



INTERNET <http://www.minicircuits.com>

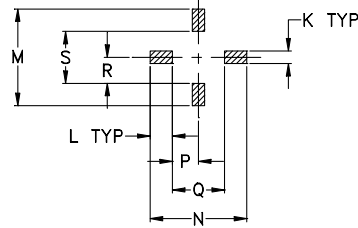
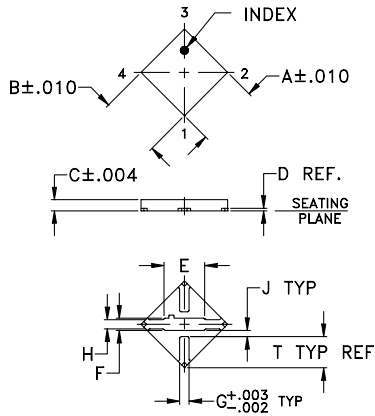


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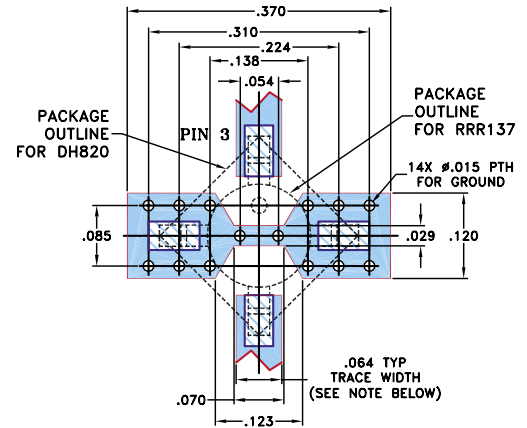
MAV-11A+ MAV-11A

Outline Drawing



SUGGESTED LAND PATTERN FOR PC LAYOUT
PATTERN TO BE WITHIN $\pm .002$

Demo Board MCL PIN: MAV-TB
Suggested PCB Layout (PL-169)



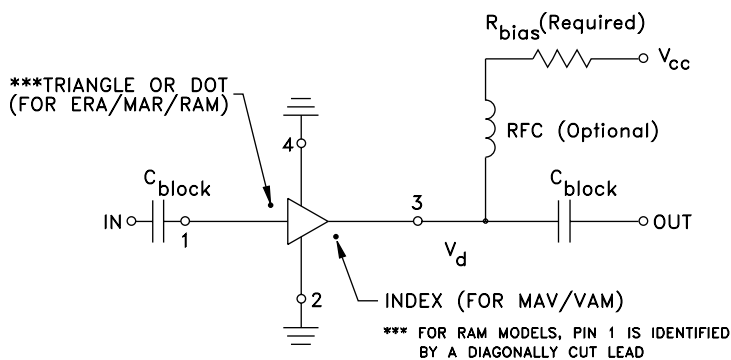
Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K
.197	.197	.035	.008	.130	.039	.030	.030	.020	.040
5.00	5.00	0.89	0.20	3.30	0.99	0.76	0.76	0.51	1.02
L	M	N	P	Q	R	S	T	wt	
.072	.310	.310	.084	.167	.084	.167	.100	grams	
1.83	7.87	7.87	2.13	4.24	2.13	4.24	2.54	.06	

NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS $.030 \pm .002$, COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

DENOTES PCB COPPER LAYOUT
 DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Typical Biasing Configuration



Resistor Values

Vcc	"1%" Res.
7	28.0
8	45.3
9	61.9
10	78.7
11	95.3
12	113
13	127
14	143
15	158



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