

High IP3 Voltage Variable Attenuator

RVA-2000+

50Ω 150 to 2000 MHz

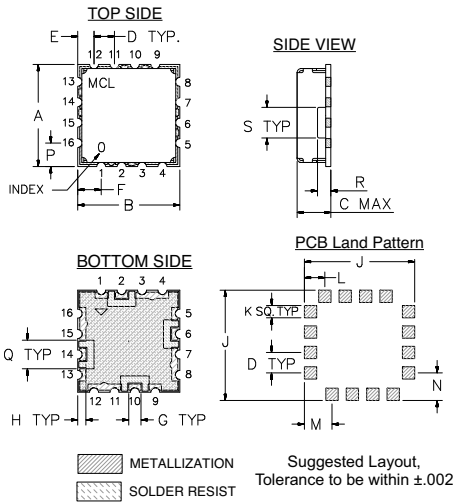
Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 85°C
Absolute Max. Supply Voltage(V+)	12V
Absolute Max. Control Voltage(Vctrl)	20V
Absolute Max. RF Input Level	+30 dBm

Pin Connections

RF IN	2
RF OUT	10
V CONTROL	6
V+	14
GROUND	1,3,4,5,7,8,9,11,12,13,15,16

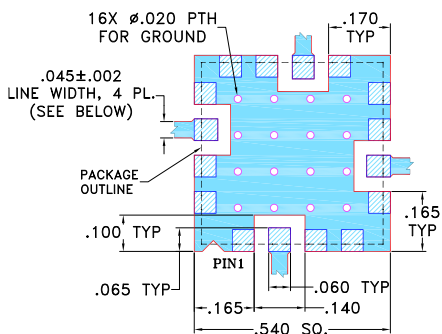
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.500	.500	.195	.100	.080	.115	.060	.040	.540
12.70	12.70	4.95	2.54	2.03	2.92	1.52	1.02	13.72
K	L	M	N	P	Q	R	S	wt.
.060	.100	.135	.135	.115	.140	.070	.150	grams
1.52	2.54	3.43	3.43	2.92	3.56	1.78	3.81	1.0

Demo Board MCL P/N: TB-163 Suggested PCB Layout (PL-040)



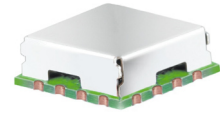
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS 0.025" ± 0.0025"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- Frequency range, 150-2000 MHz
- High RF Input level, +31dBm Max.
- High IP3, +55 dBm typ.
- Fast Rise/Fall Time, 5μSec/4μSec Typ.
- Good VSWR at IN/OUT ports over attenuation range
- Minimal phase deviation over attenuation range
- No external bias and RF matching network required
- Shielded case
- Aqueous washable

Applications

- Power level control
- Feed forward amplifiers



CASE STYLE: DV874
PRICE: \$ 11.95 ea. QTY (10-49)

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

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

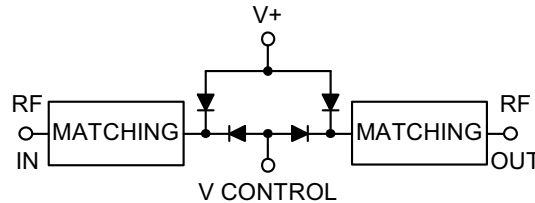
Electrical Specifications (T_{AMB} = 25°C)

FREQ. (MHz)	MIN. INSERTION LOSS, dB (+17V)		MAX. ATTENUATION dB (0V)		INPUT POWER (dBm)	CONTROL Voltage Current (V) (mA)		IP3 (dBm)	RETURN LOSS (dB)	POWER SUPPLY Voltage Current (V) (mA)	
	Min.	Max.	Typ.	Max.		Typ.	Max.			Typ.	Max.
150 - 500	2.8	3.5	46	34	+30	0 - 17	30	53	23	+5	10
500 - 1500	3.0	4.5	35	23	+30	0 - 17	30	56	22	+5	10
1500 - 2000	3.5	5.0	29	20	+30	0 - 17	30	57	21	+5	10

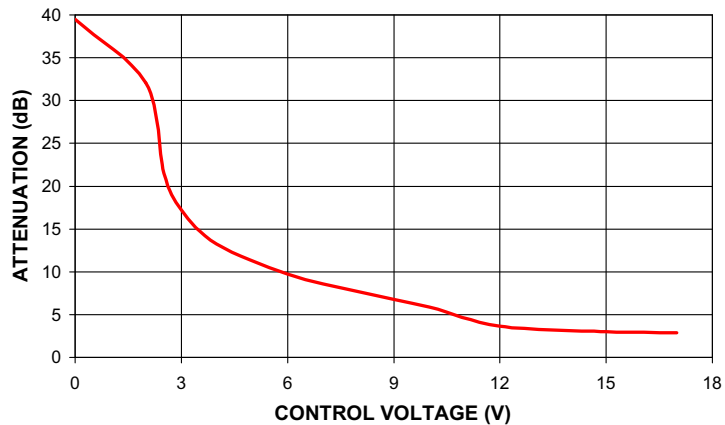
Notes:

- Rise/Fall time: 5μSec/4μSec Typ.
- Switching Time, turn on/off: 6μSec. Typ.

Equivalent Schematic



RVA-2000+ TYPICAL ATTENUATION AT 500 MHz



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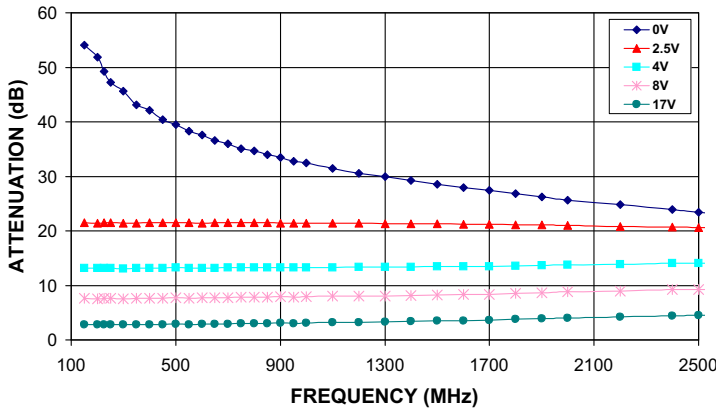


The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

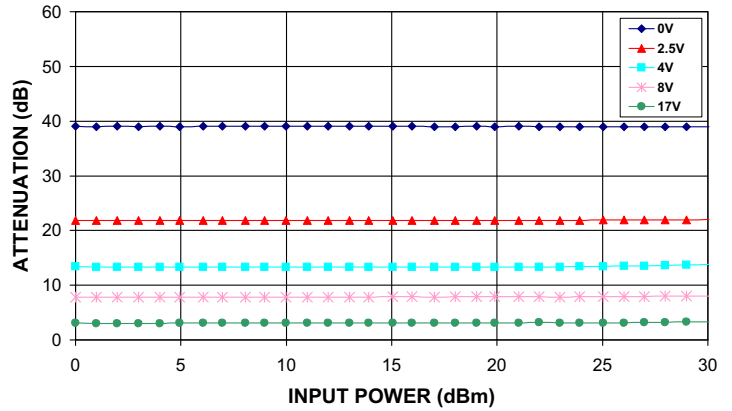
RF/IF MICROWAVE COMPONENTS

REV. OR
M106828
EDR-7056/4F1
RVA-2000+
RAV
071202
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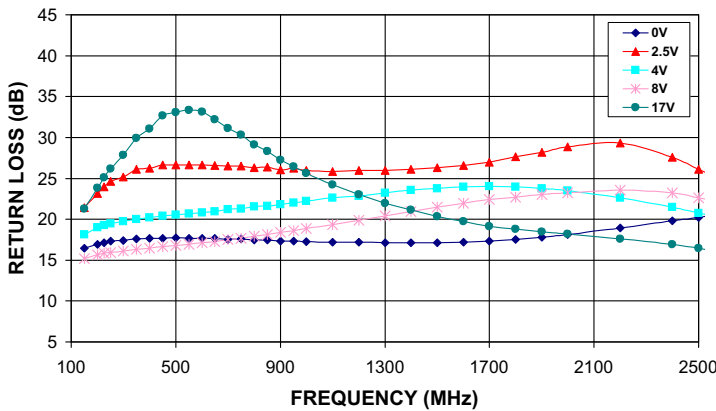
RVA-2000+
ATTENUATION Vs. FREQUENCY
OVER CONTROL VOLTAGES



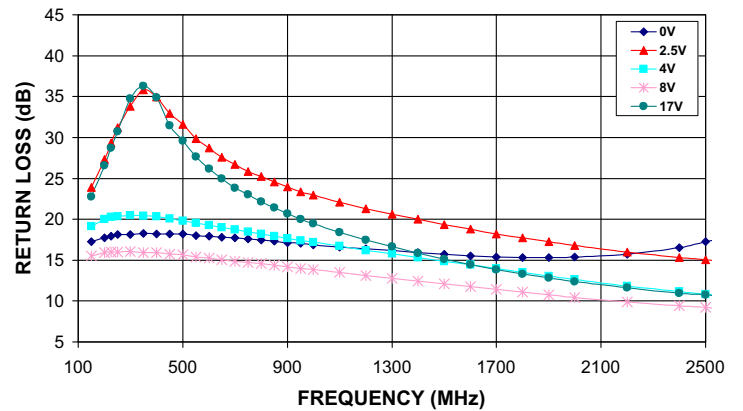
RVA-2000+
ATTENUATION Vs. INPUT POWER
OVER CONTROL VOLTAGES AT 500MHz



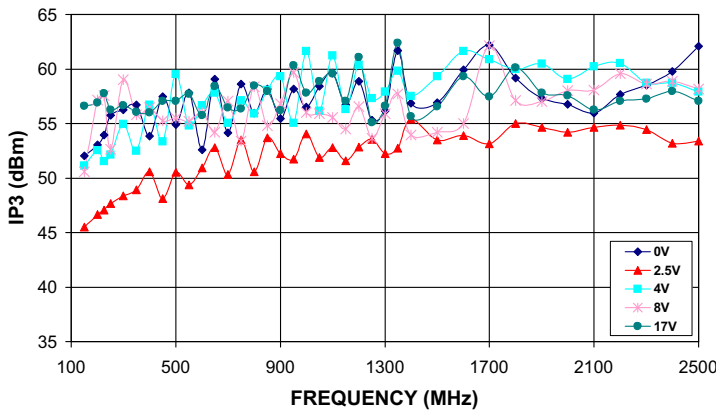
RVA-2000+
INPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES



RVA-2000+
OUTPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES



RVA-2000+
IP3 Vs. FREQUENCY
OVER CONTROL VOLTAGES



RVA-2000+
PHASE SHIFT Vs. FREQUENCY
OVER CONTROL VOLTAGES

