

Surface Mount Voltage Variable Attenuator

RVA-800+

50Ω 50 to 800 MHz

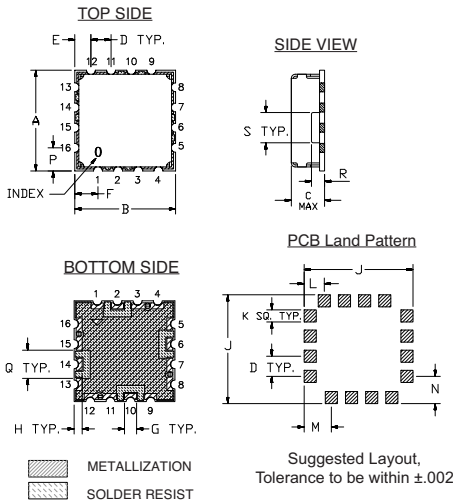
Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 85°C
Absolute Max. Supply Voltage(V+)	7V
Absolute Max. Control Voltage(Vctrl)	7V
Absolute Max. RF Input Level	+18 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

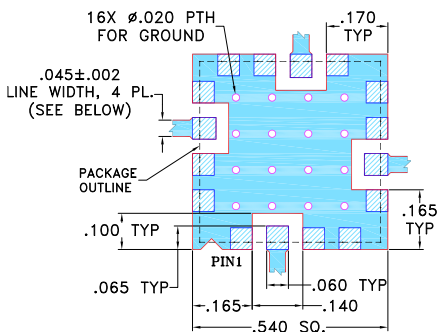


Outline Dimensions (inch/mm)

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)



NOTES:
 1. 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
 2. 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, 50-800 MHz
- Low Insertion Loss, 1.5dB Typ.
- IP3, +45 dBm Typ.
- Minimal phase deviation over attenuation range
- No external bias and RF matching network required
- Shielded case
- Aqueous washable

Applications

- Video Modulator
- Power level control
- Feed forward amplifiers
- CATV



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

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

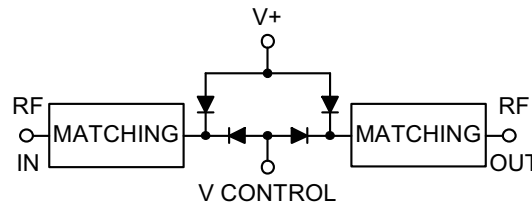
The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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

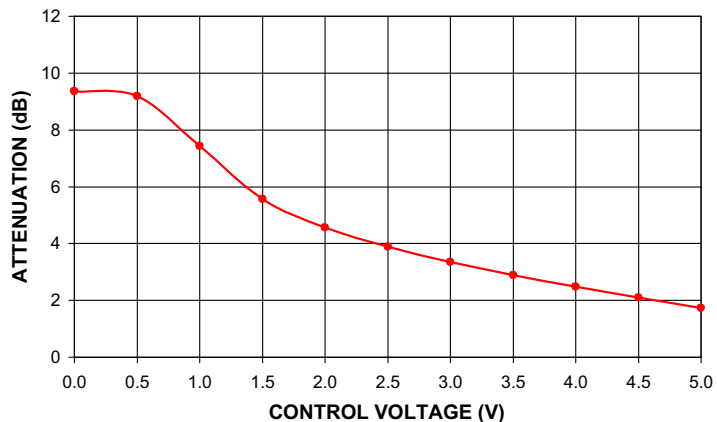
FREQ. (MHz)	MIN. INSERTION LOSS, dB (+5V)		MAX. ATTENUATION dB (0V)		INPUT POWER (dBm)	CONTROL Voltage Current (V) (mA)		IP3 (dBm)	RETURN LOSS (dB)	POWER SUPPLY Voltage Current (V) (mA)	
	Min.	Max.	Typ.	Max.		Min.	Max.			Typ.	Max.
50 - 800	1.5	3.0	9	7.5	+18	0 - 5	17	45	23	+5	4

Notes:
 Rise/Fall time: 10μSec / 20 μSec Typ.
 Switching Time, turn on/off: 25 μSec. Typ.

Equivalent Schematic



RVA-800+ TYPICAL ATTENUATION AT 500MHz



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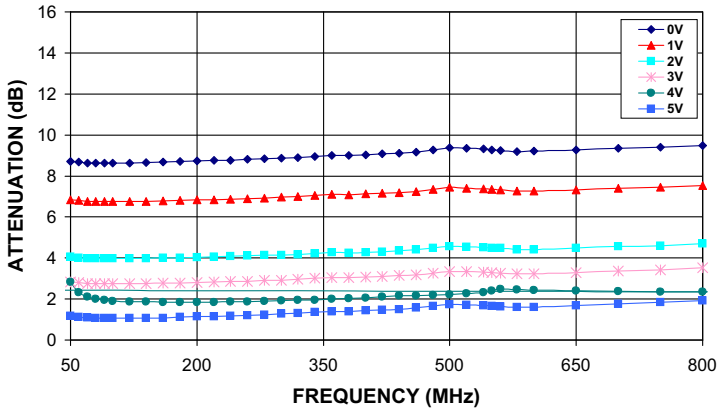
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



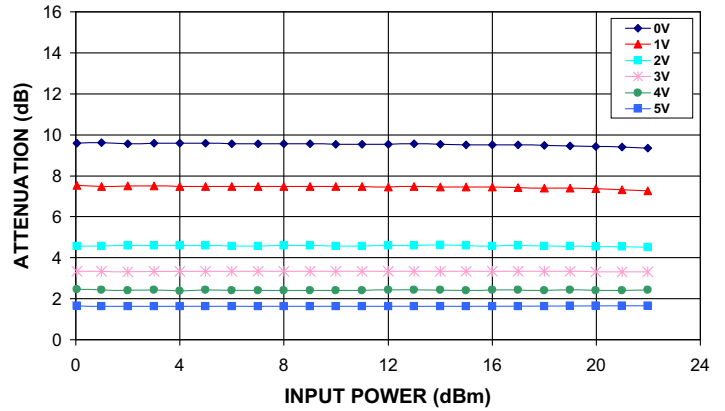
The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

IF/RF MICROWAVE COMPONENTS

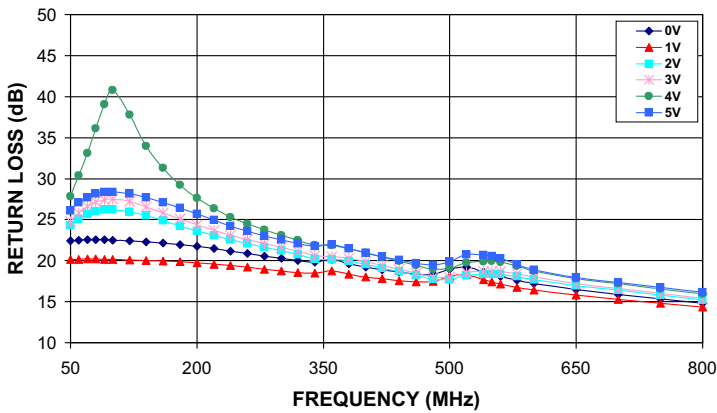
RVA-800+
ATTENUATION Vs. FREQUENCY
OVER CONTROL VOLTAGES



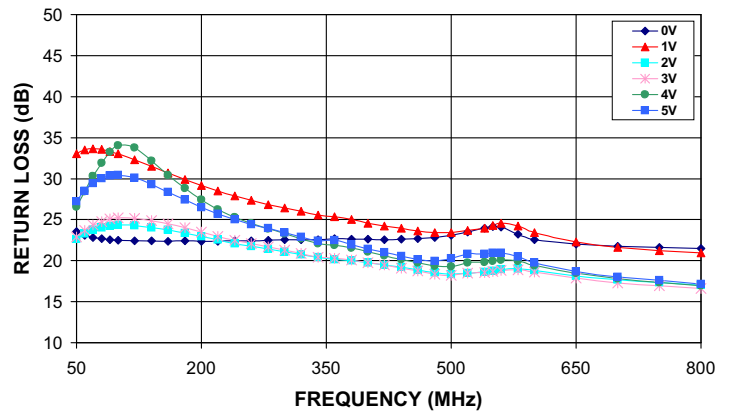
RVA-800+
ATTENUATION Vs. INPUT POWER
OVER CONTROL VOLTAGES AT 500MHz



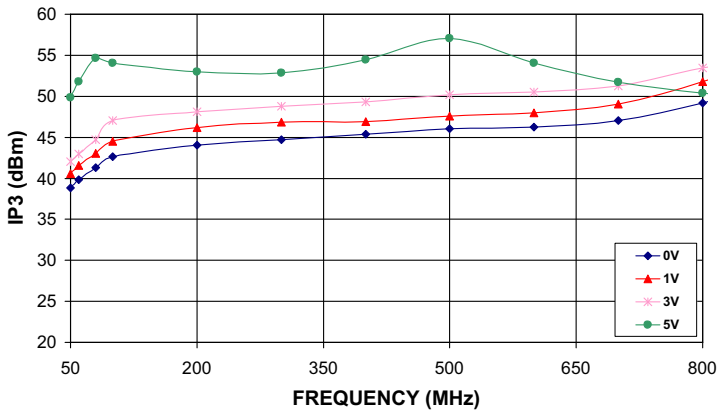
RVA-800+
INPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES



RVA-800+
OUTPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES



RVA-800+
IP3 Vs. FREQUENCY
OVER CONTROL VOLTAGES



RVA-800+
PHASE SHIFT Vs. FREQUENCY
OVER CONTROL VOLTAGES

