

Miniature Surface Mount Fixed Attenuator

50Ω 0.5W 12dB DC to 2500 MHz

LAT-12+



Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

INPUT	4
OUTPUT	2
GROUND	1,3

Features

- wideband, DC to 2500 MHz
- excellent VSWR, through entire band
- miniature size, SOT143 package
- aqueous washable

CASE STYLE: MMM168
PRICE: \$1.95 ea. QTY (20)

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Applications

- cellular
- PCS
- ISM
- VHF/UHF



Available Tape and Reel
at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000, 2000, 3000

Electrical Specifications at 25°C

FREQ. RANGE (MHz)	ATTENUATION (dB) Flatness, Max.			VSWR (:1) Max.			MAX. INPUT POWER ¹ (W)	
	DC-0.5 GHz	DC-1 GHz	DC-2.5 GHz	DC-0.5 GHz	DC-1 GHz	DC-2.5 GHz		
f _L -f _U	Norm.							
DC-2500	12±0.8	0.3	0.5	0.8	1.3	1.4	1.6	0.5

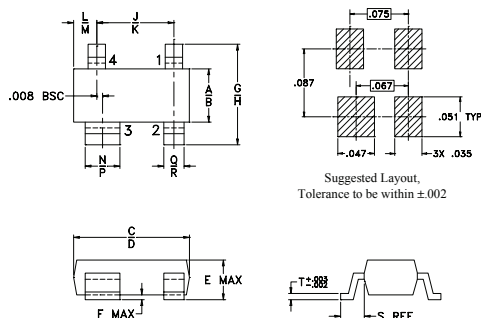
1. RF power at 25°C case temperature: ½Watt. Derate linearly to 0.2 Watt at 85°C.
2. Flatness= variation over band divided by 2

Typical Performance Data

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
1.00	11.68	1.08
10.00	11.69	1.07
50.00	11.70	1.07
100.00	11.71	1.08
500.00	11.75	1.09
1000.00	11.82	1.11
1600.00	11.90	1.19
2000.00	11.98	1.23
2250.00	12.06	1.27
2500.00	12.14	1.30

Outline Drawing

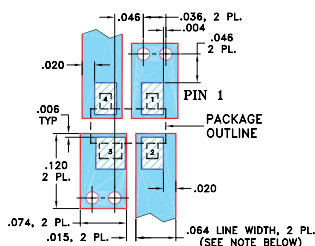
PCB Land Pattern



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K
.045	.055	.105	.120	.047	.005	.083	.104	.070	.080
1.14	1.40	2.67	3.05	1.19	0.13	2.11	2.64	1.78	2.03
L	M	N	P	Q	R	S	T	wt	
.018	.024	.030	.036	.015	.021	.023	.005	grams	
0.46	0.61	0.76	0.91	0.38	0.53	0.58	0.13	0.01	

Demo Board MCL P/N: TB-39 Suggested PCB Layout (PL-225)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .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 WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



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