

# Miniature Plastic Fixed Attenuator

50Ω 0.5W 8dB DC to 8000 MHz

## GAT-8+



CASE STYLE: FG873

### Maximum Ratings

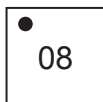
Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 100°C

Permanent damage may occur if any of these limits are exceeded.

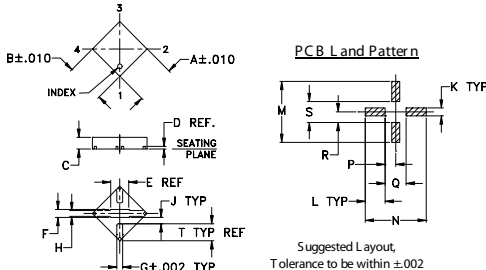
### Pin Connections

INPUT	1
OUTPUT	3
GROUND	2,4

### Product Marking



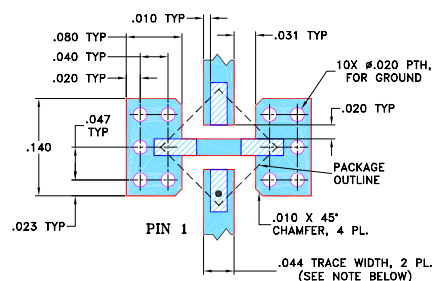
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	
0.118	0.118	0.035	0.008	0.07	0.024	0.017	0.018	0.021	
3.00	3.00	0.89	0.20	1.78	0.61	0.43	0.46	0.53	
K	L	M	N	P	Q	R	S	T	wt
0.024	0.061	0.186	0.186	0.032	0.064	0.032	0.064	0.05	grams
0.61	1.55	4.72	4.72	0.81	1.63	0.81	1.63	1.27	0.02

### Demo Board MCL P/N: TB-154 Suggested PCB Layout (PL-126)



- NOTES:**
- TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .0015"; 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

- miniature package MCLP™ 3x3 mm
- specified to 8000 MHz, useable to 10000 MHz
- excellent VSWR, 1:15:1 typ.

### Applications

- cellular
- PCS
- communications
- radar
- defense

### +RoHS Compliant

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

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000
13"	2000, 4000

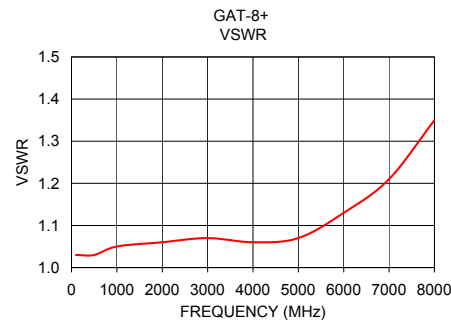
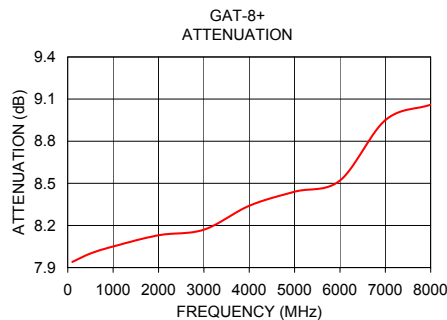
### Electrical Specifications at 25°C

FREQ. RANGE (MHz)	ATTENUATION (dB)					VSWR (:1)					MAX. INPUT POWER <sup>1</sup> (W)	
	Flatness											
	DC-1 GHz Typ.	1-5 GHz Typ.	5-8 GHz Typ.	DC-1 GHz Typ.	1-5 GHz Typ.	5-8 GHz Typ.	DC-1 GHz Max.	1-5 GHz Max.	5-8 GHz Max.			
$f_L$ - $f_U$	Nom.											
DC-8000	8±0.4	0.1	0.2	0.3	1.05	1.2	1.15	1.3	1.35		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)
100.00	7.94	1.03
500.00	8.00	1.03
1000.00	8.05	1.05
2000.00	8.13	1.06
3000.00	8.17	1.07
4000.00	8.34	1.06
5000.00	8.44	1.07
6000.00	8.52	1.13
7000.00	8.95	1.21
8000.00	9.06	1.35



### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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](http://www.minicircuits.com/MCLStore/terms.jsp)

