

**FEATURES**

- Wideband, DC to 8 GHz
- Miniature package, 3x3 mm MCLP™
- Specified to 8 GHz, useable to 10 GHz
- Excellent VSWR, 1.15:1 typ.

APPLICATIONS

- Cellular
- PCS
- Communications
- Radar
- Defense



Generic photo used for illustration purposes only

CASE STYLE: FG873

+RoHS CompliantThe +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications**ELECTRICAL SPECIFICATIONS AT +25°C**

| Parameter | Condition (GHz) | Min. | Typ. | Max. | Unit |
|------------------------------------|-----------------|------|-------|------|------|
| Frequency Range | | DC | — | 8 | GHz |
| Attenuation, Nominal | | | 5±0.3 | | dB |
| Attenuation, Flatness ¹ | DC - 1 | | 0.1 | | dB |
| | 1 - 5 | | 0.2 | | |
| | 5 - 8 | | 0.2 | | |
| VSWR | DC - 1 | | 1.05 | 1.2 | :1 |
| | 1 - 5 | | 1.15 | 1.3 | |
| | 5 - 8 | | 1.35 | | |
| Input Power ² | | | | 0.5 | W |

1. Flatness= variation over band divided by 2

2. RF power at 25°C case temperature: ½Watt. Derate linearly to 0.2 Watt at 85°C.

ABSOLUTE MAXIMUM RATINGS

| Parameter | 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.



MINIATURE PLASTIC

Fixed Attenuator

GAT-5+

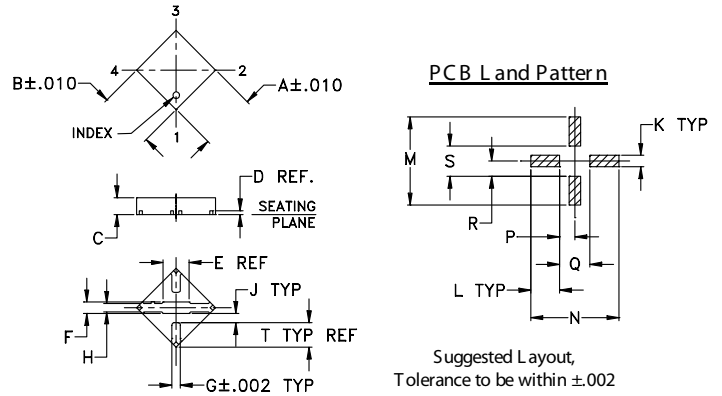
Mini-Circuits

50Ω 0.5 W 5 dB DC to 8 GHz

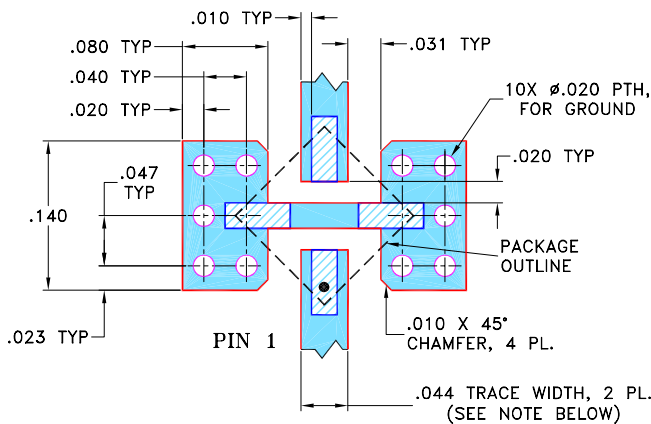
PAD CONNECTIONS

| | |
|--------|-----|
| INPUT | 1 |
| OUTPUT | 3 |
| GROUND | 2,4 |

OUTLINE DRAWING



DEMO BOARD MCL P/N: TB-154 SUGGESTED PCB LAYOUT (PL-126)



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 |

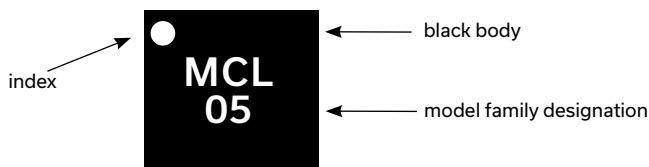
TAPE & REEL INFORMATION: F68

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

PRODUCT MARKING



Marking may contain other features or characters for internal lot control





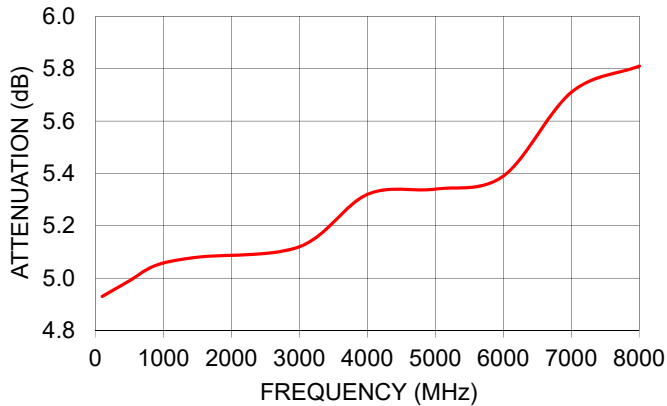
Fixed Attenuator

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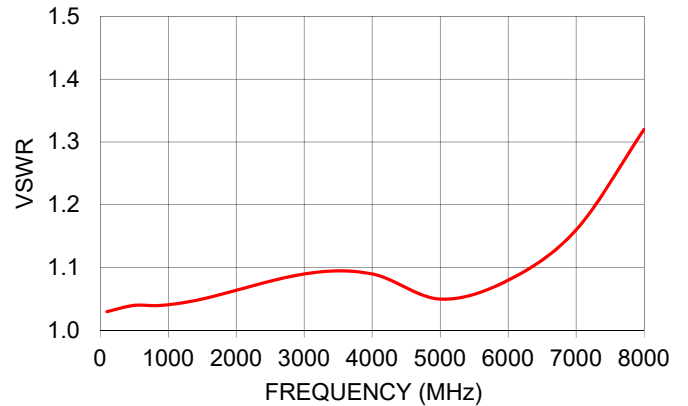
TYPICAL PERFORMANCE DATA AND CHARTS

| Frequency (MHz) | Attenuation (dB) | VSWR (:1) |
|-----------------|------------------|-----------|
| 100.00 | 4.93 | 1.03 |
| 500.00 | 4.99 | 1.04 |
| 900.00 | 5.05 | 1.04 |
| 1500.00 | 5.08 | 1.05 |
| 3000.00 | 5.12 | 1.09 |
| 4000.00 | 5.32 | 1.09 |
| 5000.00 | 5.34 | 1.05 |
| 6000.00 | 5.39 | 1.08 |
| 7000.00 | 5.71 | 1.16 |
| 8000.00 | 5.81 | 1.32 |

GAT-5+
ATTENUATION



GAT-5+
VSWR



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-Circuits' 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/terms/viewterm.html