

Surface Mount 
RF Transformer
 50Ω 3 to 800 MHz

TC4-1WX+

Features

- wideband, 3-800 MHz
- good return loss
- plastic base with leads
- aqueous washable

Applications

- impedance matching
- push-pull amplifiers



Generic photo used for illustration purposes only

CASE STYLE: AT1521

+RoHS Compliant

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

| Available Tape and Reel at no extra cost | |
|--|-----------------------|
| Reel Size | Devices/Reel |
| 7" | 20, 50, 100, 200, 500 |
| 13" | 1000, 2000 |

Electrical Specifications at 25°C

| Parameter | Condition | Min. | Typ. | Max. | Unit |
|---------------------------------------|-----------|------|------|------|------|
| Impedance Ratio (secondary / primary) | | | 4 | | Ohm |
| Frequency Range | | 3 | | 800 | MHz |
| Insertion Loss* | 3-800 | | 3.0 | | dB |
| | 5-400 | | 2.0 | | |
| | 10-100 | | 1.0 | | |

* Insertion Loss is referenced to mid-band loss, 0.8 dB typ.

Maximum Ratings

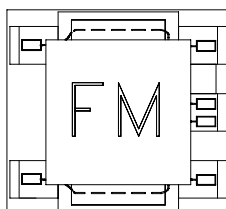
| Parameter | Ratings |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power | 0.25W |
| DC Current | 30mA |

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

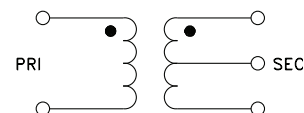
Pin Connections

| Function | Pin Number |
|---------------|------------|
| PRIMARY DOT | 6 |
| PRIMARY | 4 |
| SECONDARY DOT | 1 |
| SECONDARY | 3 |
| SECONDARY CT | 2 |

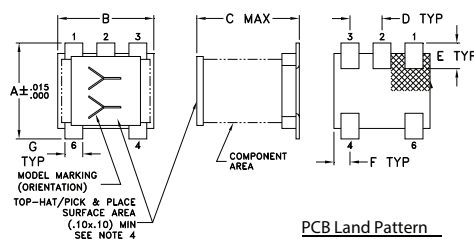
Product Marking



Config. A

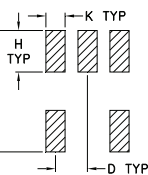


Outline Drawing



- Note:
- 1. Case Material Plastic
 - 2. Termination Finish: Tin plate over Nickel plate.
 - 3. Lead #1 identifier shall be located in the cross-hatched area shown, on bottom view. Identifier may be either a molded or marked feature.
 - 4. Top-Hat total thickness: .013 inches max.

PCB Land Pattern



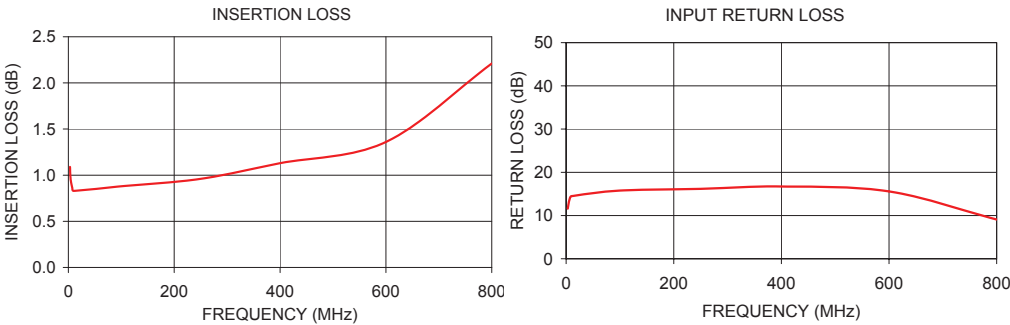
Suggested Layout,
Tolerance to be within $\pm .002$

Outline Dimensions (inch)

| A | B | C | D | E | F |
|------|------|------|------|-------|------|
| .150 | .150 | .160 | .050 | .040 | .025 |
| 3.81 | 3.81 | 4.06 | 1.27 | 1.02 | 0.64 |
| G | H | J | K | wt | |
| .028 | .065 | .190 | .030 | grams | |
| 0.71 | 1.65 | 4.83 | 0.76 | 0.15 | |

Typical Performance Data

| FREQUENCY (MHz) | INSERTION LOSS (dB) | INPUT R. LOSS (dB) |
|--------------------|---------------------------|--------------------------|
| 3.00 | 1.09 | 11.58 |
| 4.00 | 0.98 | 12.35 |
| 5.00 | 0.93 | 13.11 |
| 7.50 | 0.86 | 14.21 |
| 10.00 | 0.83 | 14.49 |
| 100.00 | 0.88 | 15.77 |
| 250.00 | 0.96 | 16.17 |
| 400.00 | 1.13 | 16.72 |
| 600.00 | 1.36 | 15.59 |
| 800.00 | 2.21 | 9.07 |



Additional 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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