SURFACE MOUNT top hat

# RF Transformer

# TC4-1WX+

50Ω 3 to 800 MHz

## FEATURES

- Wideband, 3 to 800 MHz
- Good Return Loss
- Plastic Base With Leads
- Aqueous Washable



*Generic photo used for illustration purposes only*

CASE STYLE: AT1521

**+RoHS Compliant**
The +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications

## APPLICATIONS

- Impedance Matching
- Push-Pull Amplifiers

## ELECTRICAL SPECIFICATIONS AT +25°C

| Parameter | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|
| Impedance Ratio (Secondary/Primary) | | | 4 | | Ohm |
| Frequency Range | | 3 | | 800 | MHz |
| Insertion Loss[1] | 3-800 | | | 3.0 | dB |
| | 5-400 | | | 2.0 | |
| | 10-100 | | | 1.0 | |

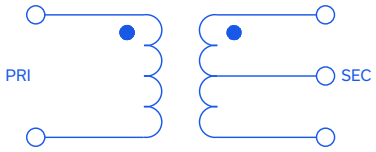
1. Insertion Loss is referenced to mid-band loss, 0.8 dB typ.

## ABSOLUTE MAXIMUM RATINGS

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

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

## CONFIG. A




REV. D
ECO-027808
TC4-1WX+
MCL NY
251203

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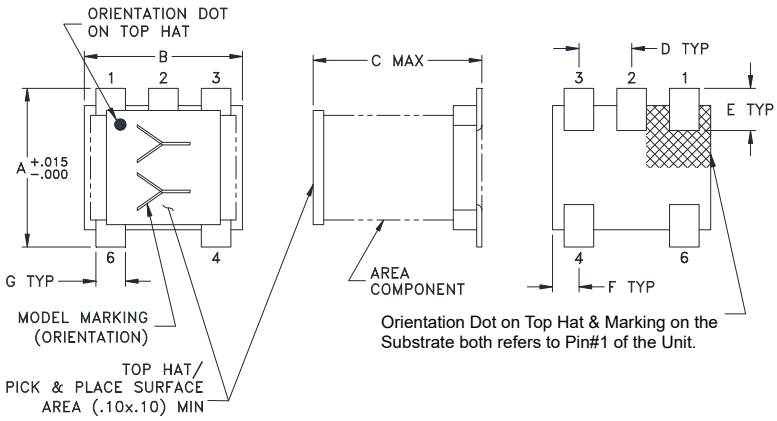
## PIN CONNECTIONS

| | |
|---|---|
| PRIMARY DOT | 6 |
| PRIMARY | 4 |
| SECONDARY DOT | 1 |
| SECONDARY | 3 |
| SECONDARY CT | 2 |

**PRODUCT MARKING:** FM

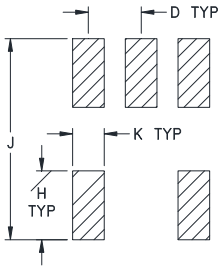
**DEMO BOARD MCL P/N:** TB-TC4-1WX+

## OUTLINE DRAWING




Top-hat total thickness: .013 inches MAX.

### PCB Land Pattern




Suggested Layout,
Tolerance to be within ±.002 in

## OUTLINE DIMENSIONS (Inch / mm)

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

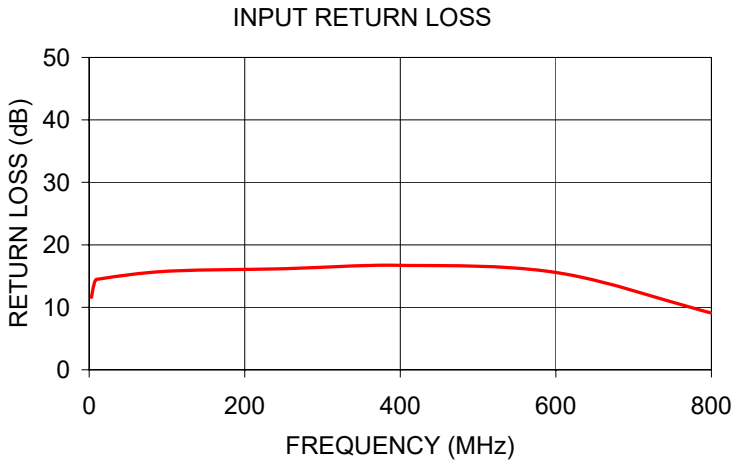
Weight: 0.15 grams

**TAPE & REEL INFORMATION: F17**

## TYPICAL PERFORMANCE DATA

| FREQUENCY (MHz) | INSERTION LOSS (dB) | INPUT R. LOSS (dB) |
|---|---|---|
| 3.0 | 1.09 | 11.58 |
| 4.0 | 0.98 | 12.35 |
| 5.0 | 0.93 | 13.11 |
| 7.5 | 0.86 | 14.21 |
| 10.0 | 0.83 | 14.49 |
| 100.0 | 0.88 | 15.77 |
| 250.0 | 0.96 | 16.17 |
| 400.0 | 1.13 | 16.72 |
| 600.0 | 1.36 | 15.59 |
| 800.0 | 2.21 | 9.07 |




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/terms/viewterm.html