

Surface Mount RF Transformer

50Ω

2 to 500 MHz

TCM8-1+



CASE STYLE: DB714
PRICE: \$1.99 ea. QTY (20)
\$.99 ea. QTY (100)

+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 |

Maximum Ratings

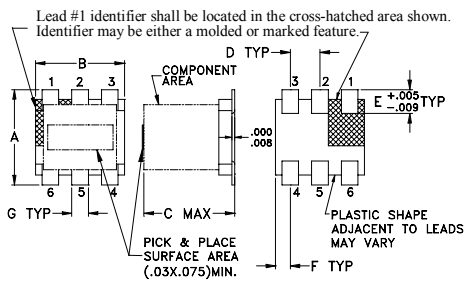
| | |
|-----------------------|----------------|
| Operating Temperature | -20°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power | 0.25W |
| DC Current | 30mA |

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

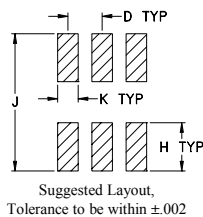
Pin Connections

| | |
|---------------|---|
| PRIMARY DOT | 6 |
| PRIMARY | 4 |
| SECONDARY DOT | 3 |
| SECONDARY | 1 |
| SECONDARY CT | 2 |
| NOT USED | 5 |

Outline Drawing



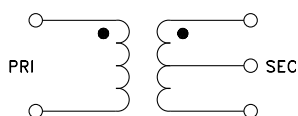
PCB Land Pattern



Outline Dimensions (inch)

| | | | | | |
|------|------|------|------|------|-------|
| A | B | C | D | E | F |
| .160 | .150 | .160 | .050 | .040 | .025 |
| 4.06 | 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 |

Config. A



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

Features

- wide bandwidth, 2 to 500 MHz
- good return loss
- excellent amplitude unbalance, 0.1 dB typ. and phase unbalance, 2 deg typ. in 1 dB bandwidth
- plastic base with solder plated leads
- aqueous washable

Applications

- impedance matching

Transformer Electrical Specifications

| Ω RATIO (Secondary/Primary) | FREQUENCY (MHz) | INSERTION LOSS* | | |
|-----------------------------------|--------------------|-----------------|-------------|-------------|
| | | 3 dB MHz | 2 dB MHz | 1 dB MHz |
| 8 | 2-500 | 2-500 | 5-400 | 10-100 |

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

Typical Performance Data

| FREQUENCY (MHz) | INSERTION LOSS (dB) | INPUT R. LOSS (dB) |
|--------------------|---------------------------|--------------------------|
| 2.00 | 1.36 | 20.96 |
| 5.00 | 1.11 | 27.44 |
| 10.00 | 1.07 | 32.00 |
| 30.00 | 1.13 | 31.42 |
| 50.00 | 1.17 | 28.33 |
| 100.00 | 1.24 | 22.86 |
| 200.00 | 1.35 | 16.51 |
| 300.00 | 1.67 | 12.66 |
| 400.00 | 2.27 | 9.85 |
| 500.00 | 2.72 | 7.79 |

