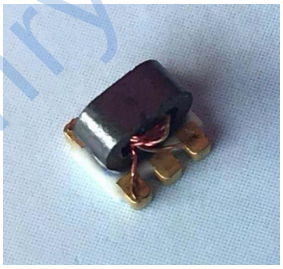
HenryTech

# RF Transformer

## HT-TC1-1-13M+

## Features

- wideband, 4.5 to 3000 MHz
- balanced transmission line
- good return loss
- excellent amplitude unbalance, 0.5 dB typ. and phase unbalance, 2 deg typ. in 1 dB bandwidth
- plastic base with leads
- aqueous washable



**50Ω 4.5 to 3000 MHz**

## Applications

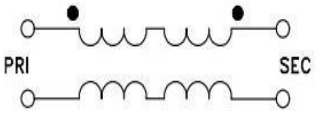
- balanced to unbalanced transformation
- push-pull amplifiers
- PCS/DCS
- MMDS

## Transformer Electrical Specifications

| Ω RATIO | FREQUENCY (MHz) | INSERTION LOSS* 1dB | PHASE UNBALANCE (Deg.) Typ. | AMPLITUDE UNBALANCE (dB) Typ. |
|---|---|---|---|---|
| 1 | 4.5-3000 | 4.5-3000 | 5 | 0.5 |

* Insertion Loss is referenced to mid-band loss, 0.3 dB typ.

Config. G




## Typical Performance Data

| FREQUENCY (MHz) | INSERTION LOSS (dB) | INPUT R. LOSS (dB) | AMPLITUDE UNBALANCE (dB) | PHASE UNBALANCE (Deg.) |
|---|---|---|---|---|
| 4.50 | 0.18 | 31.52 | 0.69 | 3.81 |
| 10.00 | 0.18 | 34.60 | 0.56 | 1.78 |
| 50.00 | 0.19 | 33.50 | 0.56 | 0.11 |
| 100.00 | 0.24 | 29.68 | 0.55 | 0.19 |
| 500.00 | 0.46 | 19.52 | 0.45 | 0.81 |
| 1000.00 | 0.68 | 16.22 | 0.14 | 1.59 |
| 1500.00 | 0.90 | 15.89 | 0.29 | 0.89 |
| 2000.00 | 1.11 | 16.97 | 0.71 | 1.28 |
| 2500.00 | 1.62 | 12.88 | 0.78 | 5.79 |
| 3000.00 | 3.02 | 6.79 | 0.49 | 12.32 |

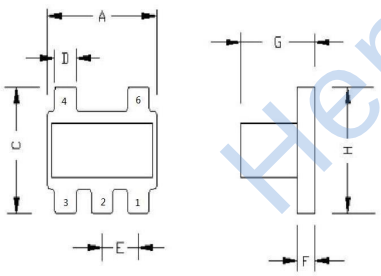
## Maximum Ratings

| |
|---|
| 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. |

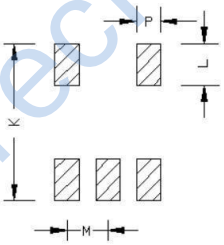
## Pin Connections

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

## Outline Drawing




**PCB Land Pattern**




**Outline Dimensions ( mm)**

| | | | |
|---|---|---|---|
| A | 3.81 | N | - |
| B | - | M | 1.27 |
| C | 3.81 | P | 0.76 |
| D | 0.76 | J | - |
| E | 1.27 | K | 4.81 |
| F | 0.61 | L | 1.30 |
| G | 2.71 | H | 3.81 |
| WT | 0.16g | | |

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