



# E-Series RF 1:4 Transmission Line Step-up Transformer 6 -1000 MHz

### MABA-008639-TC41T7 V1

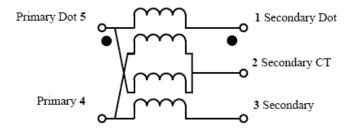
#### Features

- Surface mount
- 1:4 Impedance Ratio
- RoHS\* Compliant and is 260°C reflow compatible.
- Available on Tape and Reel, reel quantity 2000

#### Description

M/A-COM's MABA-008639-TC41T7 is a RoHS compliant 1:4 RF transformer in a low cost, surface mount package. MABA-008639-TC41T7 is a wire welded RoHS version of ETC4-1T-7. Ideally suited for high volume cellular and wireless applications. Typical applications include single to balanced mode conversion and impedance matching.

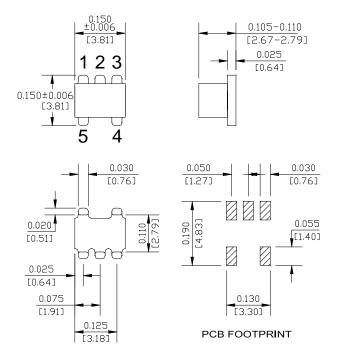
#### Schematic



#### **Pin Configuration**

Pin No.	Function			
1	Secondary Dot			
2	Secondary CT			
3	Secondary			
4	Primary			
5	Primary Dot			

# SM-22 package



#### **Ordering Information**

Part Number	Package		
MABA-008639-TC41T7	2000 piece reel		

Note: Reference Application Note M513 for reel size information.

## Absolute Maximum Ratings <sup>1,2</sup>

Parameter	Absolute Maximum		
RF Power	250 mW		
DC Current	30 mA		
Operating Temperature	-40°C to +85°C		
Storage Temperature	-55°C to +100°C		

1. Exceeding any one or combination of these limits may cause permanent damage to this device.

 M/A-COM does not recommend sustained operation near these survivability limits.

\* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

Visit www.macom.com for additional data sheets and product information.

<sup>1</sup> 

M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. M/A-COM makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does M/A-COM assume any liability whatsoever arising out of the use or application of any product(s) or information.

<sup>•</sup> North America Tel: 800.366.2266 / Fax: 978.366.2266

<sup>•</sup> Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300

<sup>•</sup> Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298





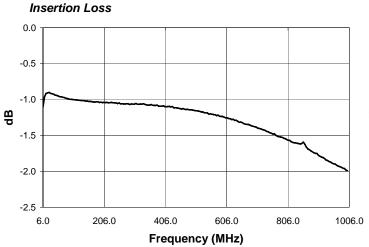
# E-Series RF 1:4 Transmission Line Step-up Transformer 6 -1000 MHz

MABA-008639-TC41T7 V1

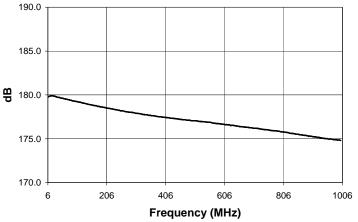
# Electrical Specifications: $T_A = 25^{\circ}C$ , $Z_0 = 50\Omega^{-1}$

Parameter	Test Conditions	Frequency	Units	Min	Тур	Мах
RF Frequency	_	6 - 1000	MHz	—	_	_
Insertion Loss	F <sub>L</sub> f <sub>U</sub>	6 - 600 600 - 1000	dB	_	-	2.0 3.0
Amplitude Unbalance	F <sub>L</sub> —f <sub>U</sub>	6 - 1000	dB	—	_	1.0
Phase Unbalance	F <sub>L</sub> —f <sub>U</sub>	6 - 1000	Degrees	_	_	10

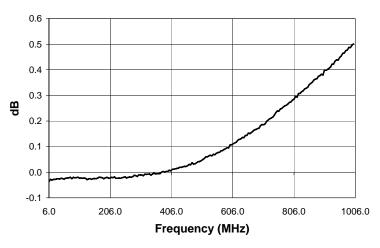
## **Typical Performance Curves**



#### Phase Unbalance



Amplitude Unbalance



<sup>2</sup> 

M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. M/A-COM makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does M/A-COM assume any liability whatsoever arising out of the use or application of any product(s) or information.

- North America Tel: 800.366.2266 / Fax: 978.366.2266
- Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298

Visit www.macom.com for additional data sheets and product information.