



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Features

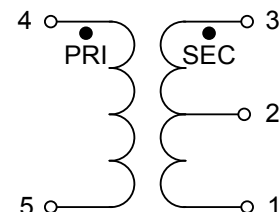
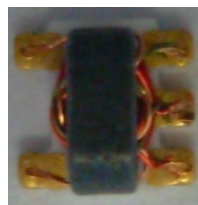
- Surface Mount
- 1:4 Impedance Ratio
- CT on Secondary
- Available on Tape & Reel
- RoHS* Compliant version of ETC4-1-2

Description

The MABAES0061 is a RoHS compliant device that is equivalent to the ETC4-1-2 transformer. This device is a 1:4 RF flux coupled step-up transformer. This transformer is offered in a SM-22 surface mount package and is designed to be utilized in both standard reflow and high temperature soldering reflow profiles.

Ideally suited for high volume cellular and wireless applications. Typical applications include single to balanced mode conversion and impedance matching.

Functional Schematic



Pin Configuration

Pin #	Function
1	Secondary
2	Secondary CT
3	Secondary Dot
4	Primary Dot
5	Primary

Electrical Specifications: Freq. = 2 - 800 MHz, $T_A = 25^\circ\text{C}$, $Z_0 = 50 \Omega$, $P_{in} = 0 \text{ dBm}$

Parameter	Conditions	Units	Min.	Typ.	Max.
Impedance Ratio	—	ratio	—	1:4	—
Insertion Loss ($f_L - f_U$)	10 - 100 MHz	dB	—	—	1.0
	5 - 600 MHz			1.21	2.0
	2 - 800 MHz			—	3.0
Amplitude Unbalance	10 - 100 MHz	dB	—	—	0.25
	2 - 800 MHz				1.00
Phase Unbalance	10 - 500 MHz	°	—	—	2
	2 - 800 MHz				10

Ordering Information

Part Number	Description
MABAES0061	2000 piece reel

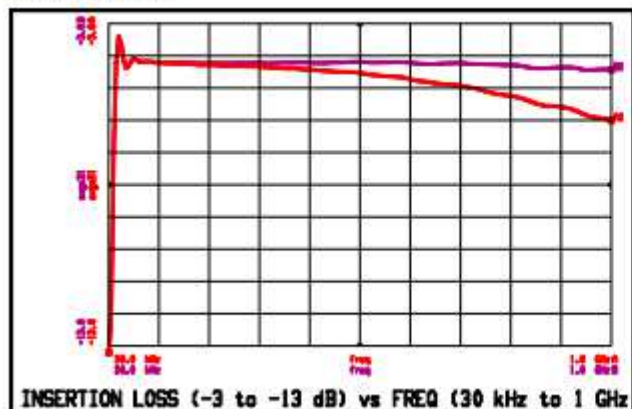
Absolute Maximum Ratings¹

Parameter	Absolute Maximum
RF Input Power	250 mW
DC Current	240 mA ²
Operating Temperature	-40°C to +85°C

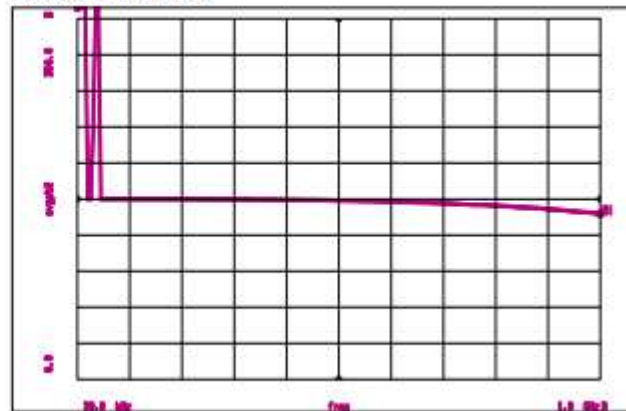
1. Operation of this device above any one of these parameters may cause permanent damage.
2. The maximum DC current applies to the secondary center tap in applications where the secondary is balanced.

Typical Performance Curves over extended Bandwidth (30 KHz - 1 GHz)

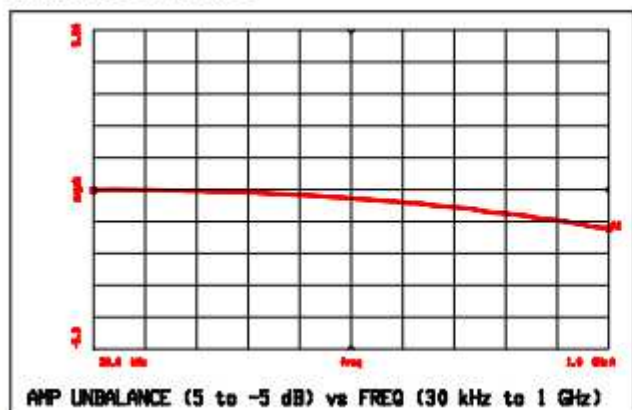
Insertion Loss



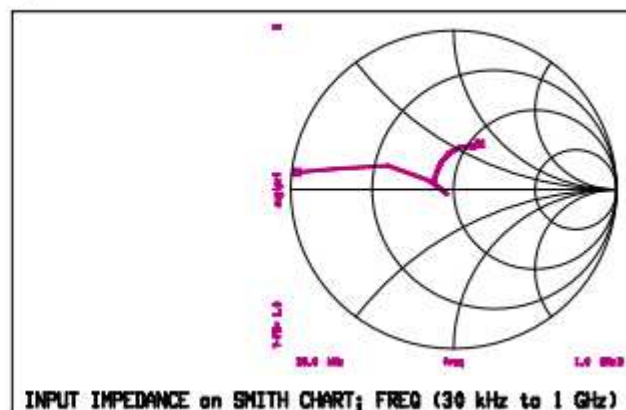
Phase Unbalance



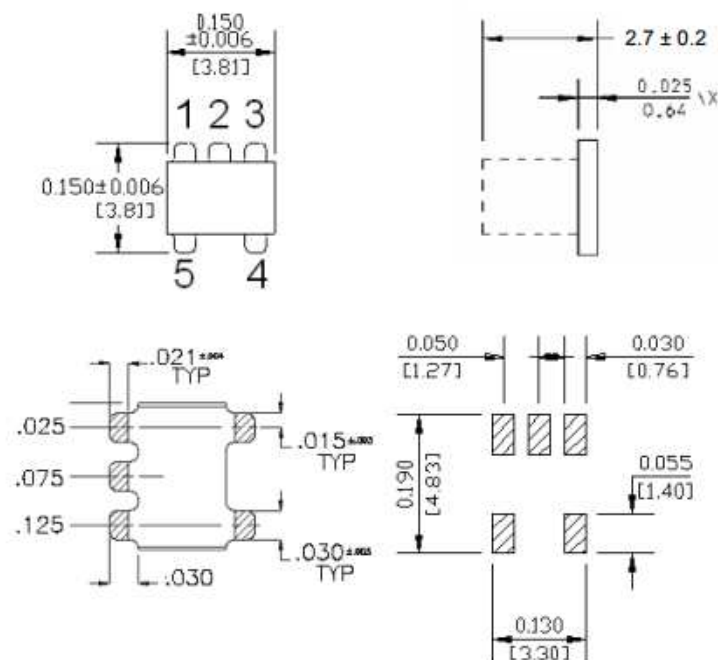
Amplitude Unbalance



Input Return Loss



Lead-Free Outline Drawing



Dimensions in mm.
Tolerance: ± 0.2 mm unless otherwise noted.
Model number and lot code are printed on the reel.

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