

**E-Series RF 1:1 Flux Coupled Transformer
0.3 – 200 MHz**

**MABAES0060
V2**

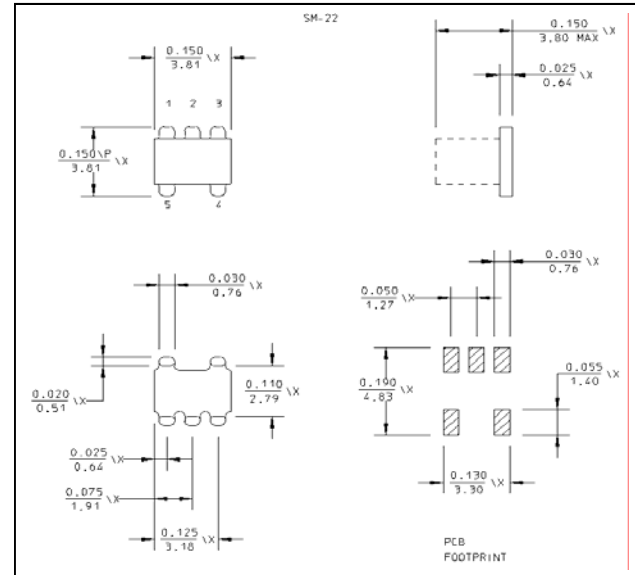
Features

- Surface Mount
- 1:1 Impedance Ratio
- CT on Secondary
- RoHS* Compliant version of the ETC1-1T
- Tape and reel packaging available

Description

M/A-COM's MABAES0060 is a RoHS compliant device that is equivalent to the ETC1-1T transformer. This device is a 1:1 RF flux coupled transformer in a low cost, surface mount package. Ideally suited for high volume cellular and wireless applications. Typical applications include single to balanced mode conversion and impedance matching. The MABAES0060 transformer is offered in an SM-22 surface mount package and is designed to be utilized in both standard reflow and high temperature soldering reflow profiles.

Outline Drawing — SM-22



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

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	0.3 - 200	MHz	—	—	—
Insertion Loss	—	0.3 - 200	dB	—	—	1.5
Amplitude Imbalance	—	0.3 - 50	dB	—	—	0.1
		0.3 - 200	dB	—	—	0.5
Phase Imbalance	—	0.3 - 50	Degrees	—	—	1.0
		0.3 - 200	Degrees	—	—	5.0
Input Return Loss	—	0.3 - 200	dB	—	—	10.0
		5 - 120	dB	—	—	15.0

Ordering Information

Part Number	Package
MABAES0060	Tape and Reel (2000 piece reels)

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

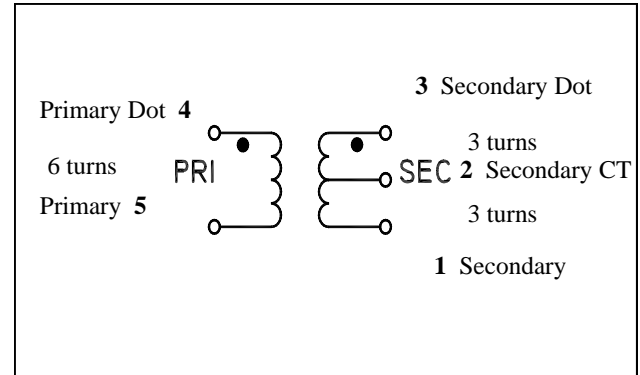
**E-Series RF 1:1 Flux Coupled Transformer
0.3 – 200 MHz**

**MABAES0060
V2**

Pin Configuration

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

Schematic



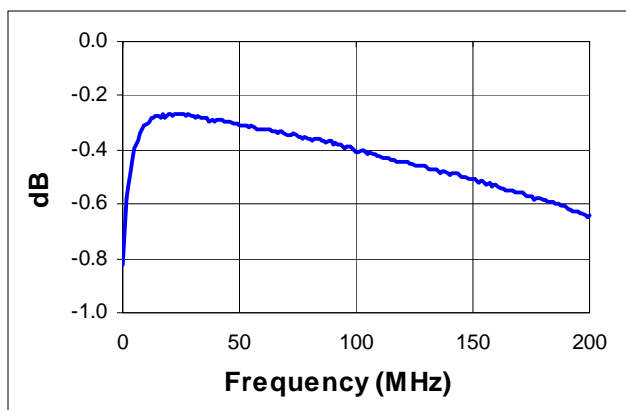
Absolute Maximum Ratings ¹

Parameter	Absolute Maximum
RF Power	250 mW
DC Current	240 mA ²
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

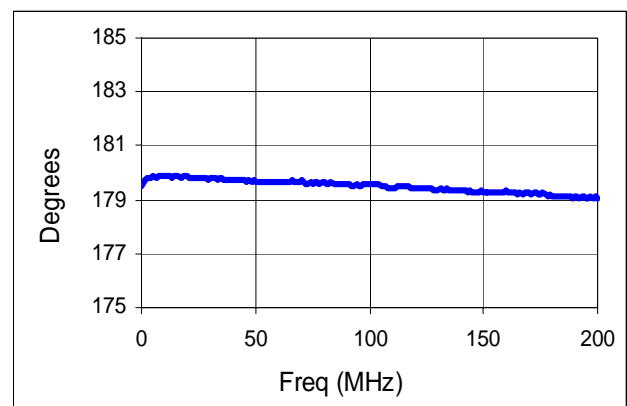
1. Operation of this device above any one of these parameters may cause permanent damage.
2. The maximum DC current applies to the secondary center tap in applications where the secondary is balanced.

Typical Performance Curves Over Extended Bandwidth (30kHz - 1.0GHz)

Insertion Loss

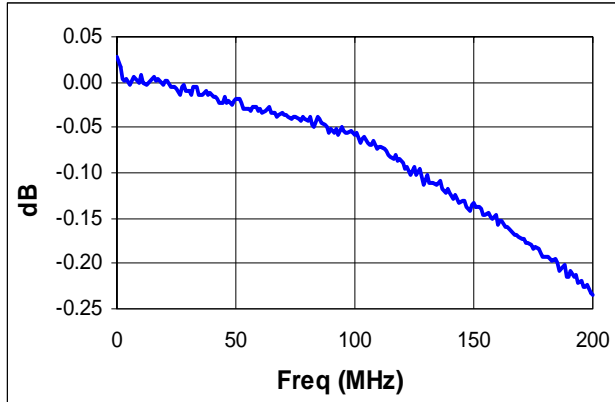


Phase Unbalance



Typical Performance Curves Over Extended Bandwidth (30kHz - 1.0GHz)

Amplitude Unbalance



Input Return Loss

