

Transformer, 1:1 Flux Coupled Transformer  
5 to 200 MHz

M/A-COM Products  
Released, Rev. V2

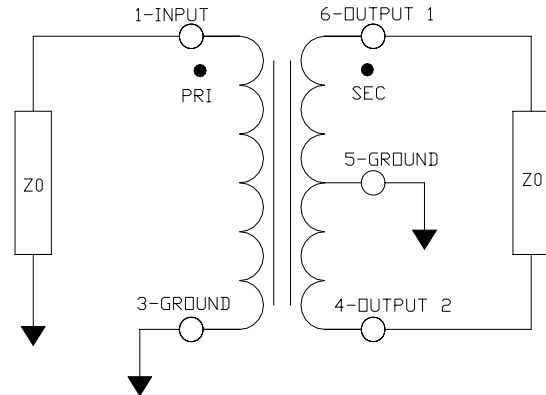
## Features

- Surface mount
- 1:1 Impedance ratio
- Centre tap on Secondary
- Suitable for DOCSIS 3.0
- 260°C reflow compatible
- RoHS\* compliant, lead free
- Available on tape and reel.

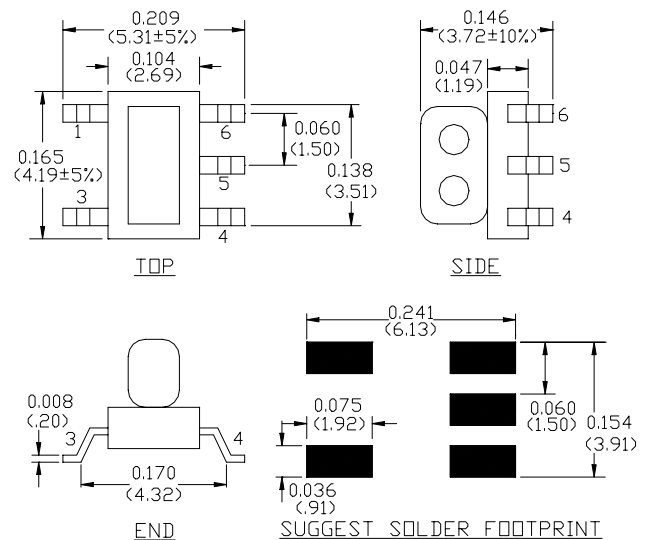
## Description

M/A Com's MABA-007532-CF18A0 is a 1:1 RF Flux coupled transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications.

## Schematic



## Case style: SM-138



## Pin configuration

Pin no.	Function
1	Primary Dot
3	Primary
4	Secondary
5	Secondary Centre Tap
6	Secondary dot

Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010, unless otherwise stated

## Ordering information

Part number	Description
MABA-007532-CF18A0	2000 piece reel
MABA-007532-CF18TB	Customer Test Board

Note: Reference Application Note **M513** for reel size information.

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

1

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## Electrical Specifications: $T_A = 25^\circ\text{C}$ , 0dBm, $Z_0 = 75\Omega$

Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	5 - 60 MHz	dB	-	0.3	0.5
	60 - 150 MHz	dB	-	0.4	0.8
	150 - 200 MHz	dB	-	0.7	1.1
Amplitude Unbalance (Nominal 0dB)	5 - 60 MHz	dB	-	0.0	$\pm 0.1$
	60 - 200 MHz	dB	-	0.2	$\pm 0.6$
Phase Unbalance (Nominal 180°)	5 - 60 MHz	°	-	0.1	$\pm 2.0$
	60 - 200 MHz	°	-	0.3	$\pm 4.0$
Input Return Loss	5 - 60 MHz	dB	20	31	-
	60 - 200 MHz	dB	10	17	-

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

Parameter	Absolute maximum
Input power	At least +28dBm (631mW)
DC current (tested at 5V)	At least 600mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C

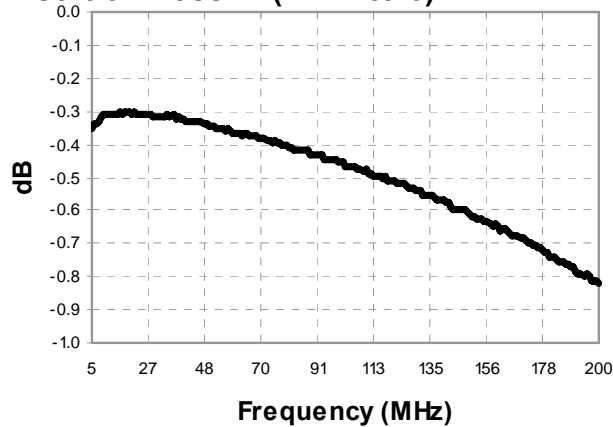
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

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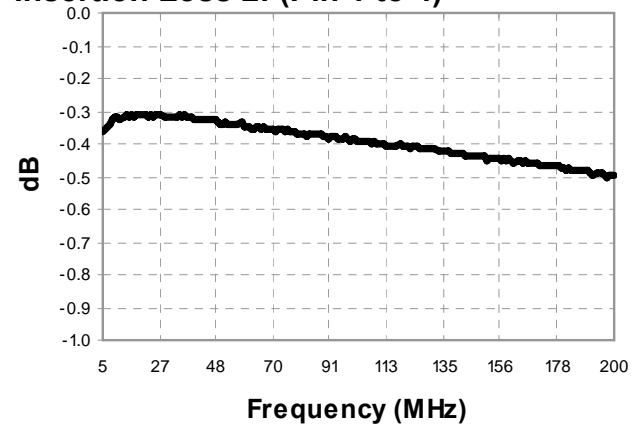
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Typical Performance Curves:  $T_A = 25^\circ\text{C}$ , 0dBm,  $Z_0 = 75\Omega$

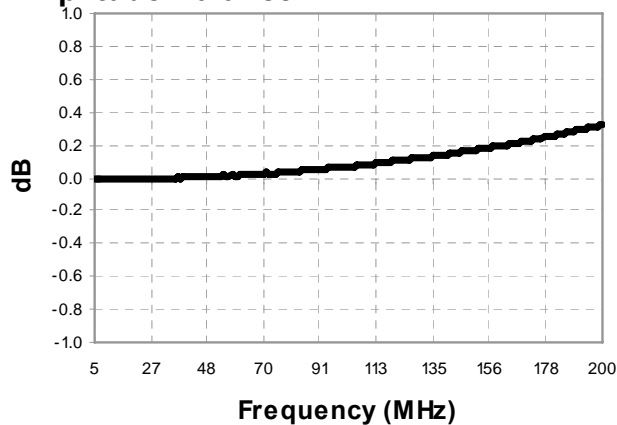
**Insertion Loss 1: (Pin 1 to 6)**



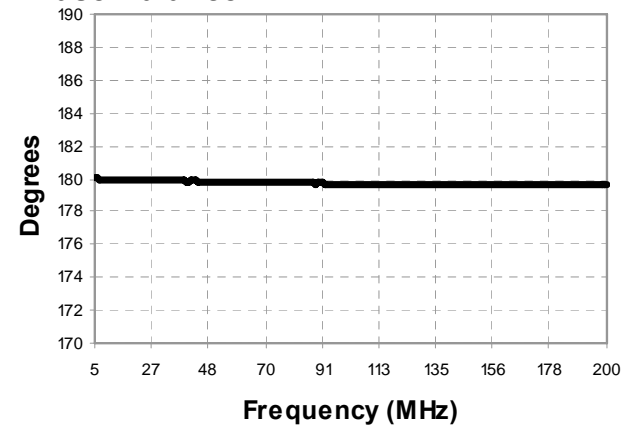
**Insertion Loss 2: (Pin 1 to 4)**



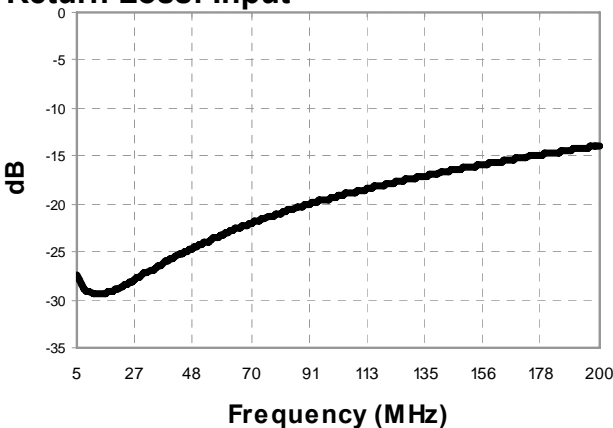
**Amplitude Balance**



**Phase Balance**



**Return Loss: Input**



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