

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

M/A-COM Products
Released, Rev. V2

Features

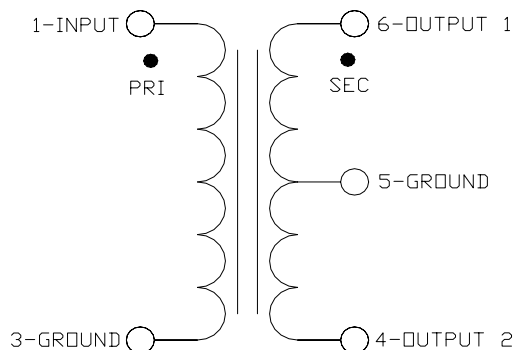
- Surface mount
- 1:1 Impedance ratio
- Centre tap on secondary
- 75Ω single ended to 75Ω balanced
- Suitable for DOCSIS 3.0
- 260°C reflow compatible
- RoHS* compliant
- Available on tape and reel.

Description

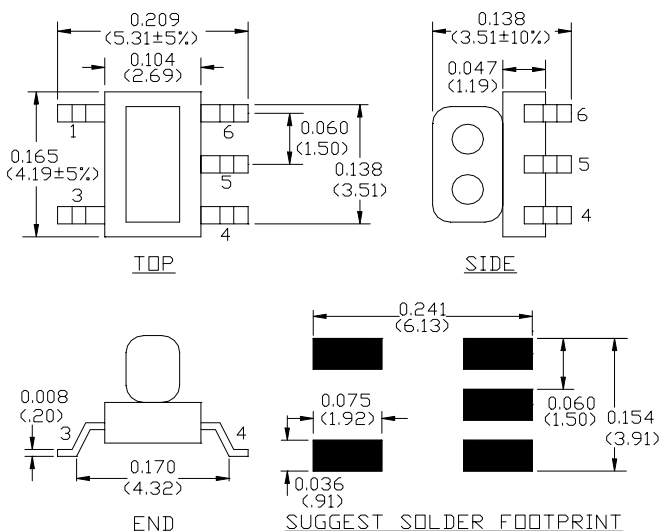
M/A Com's MABA-009572-CF18A0 is a 1:1 RF Flux coupled transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications.



Schematic



Case Style: SM-138



Pin Configuration

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

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

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

Ordering Information

Part number	Description
MABA-009572-CF18A0	2000 piece reel
MABA-009572-CF18TB	Customer Test Board

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PRELIMINARY: Data Sheets contain information regarding a product M/A-COM has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

- **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

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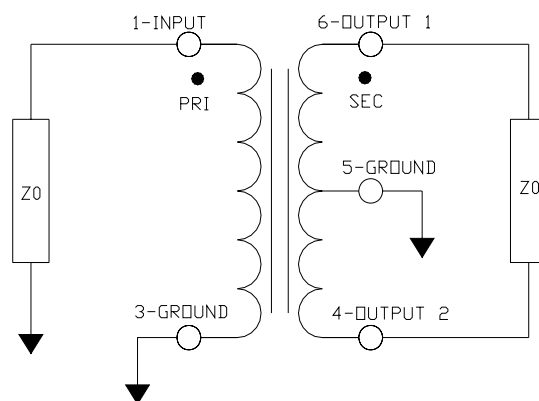
Electrical Specifications: $T_A = 25^\circ\text{C}$, 0dBm, $Z_0 = 75\Omega$

Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	5 - 60 MHz	dB	-	0.36	0.5
	60 - 150 MHz	dB	-	0.50	0.7
	150 - 200 MHz	dB	-	0.67	1.0
Amplitude Unbalance (Nominal 0dB)	5 - 60 MHz	dB	-	0.01	± 0.1
	60 - 200 MHz	dB	-	0.09	± 0.5
Phase Unbalance (Nominal 180°)	5 - 60 MHz	°	-	0.1	± 1.0
	60 - 200 MHz	°	-	0.5	± 3.0
Input Return Loss	5 - 60 MHz	dB	20	29	-
	60 - 200 MHz	dB	12	19	-

Recommended Maximum Ratings

Parameter	Value
Input power	At least +28dBm (631mW)
DC current (tested at 5V)	At least 600mA
Operating Temperature	-40°C to $+100^\circ\text{C}$
Storage Temperature	-55°C to $+100^\circ\text{C}$

Application Circuit

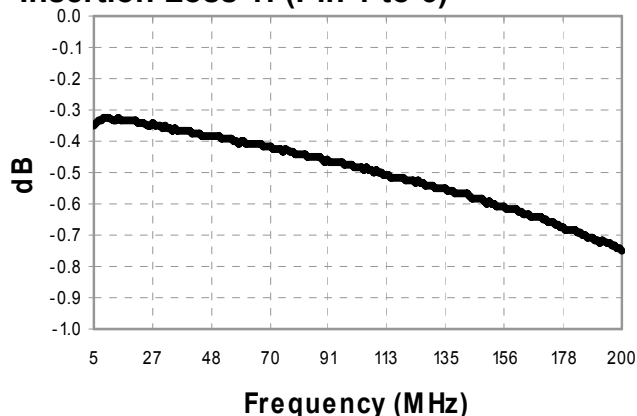


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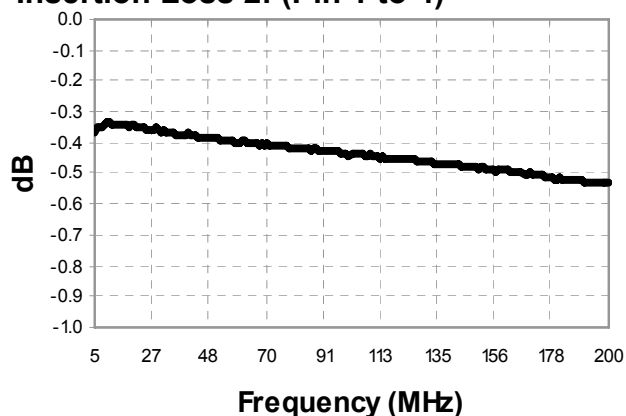
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, 0dBm, $Z_0 = 75\Omega$

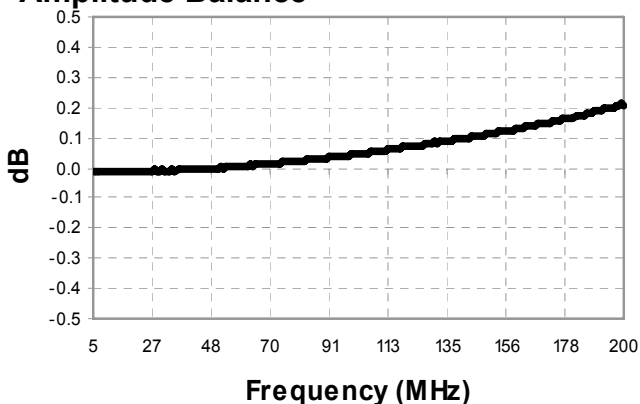
Insertion Loss 1: (Pin 1 to 6)



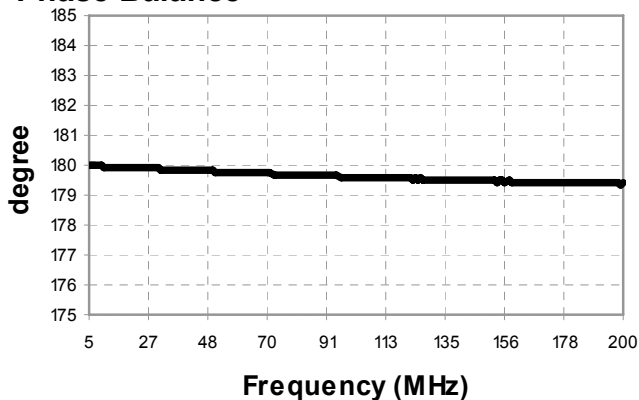
Insertion Loss 2: (Pin 1 to 4)



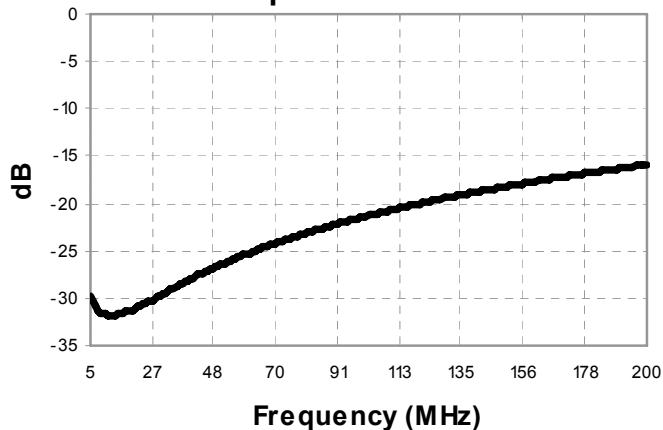
Amplitude Balance



Phase Balance



Return Loss: Input



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