tyco Electronics

RoHS Compliant

MACOM

1:1 Transformer with tap 50-870MHz

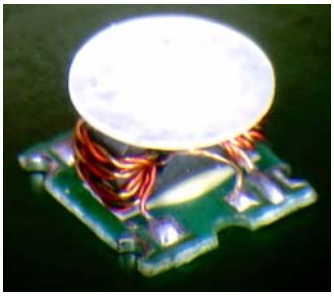
MABA-008184-CT1760
V1

Features

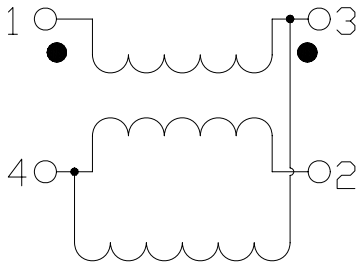
- Surface Mount
- 1:1 Impedance
- 260°C Reflow Compatible
- RoHS* Compliant
- RoHS version of ET1-1-75-3
- Available on Tape and Reel. Reel quantity 900

Description

M/A-COM's MABA-008184-CT1760 is a 1:1 Transformer with tap in a low cost, surface mount package. Ideally suited for high volume CATV/ Broadband applications.



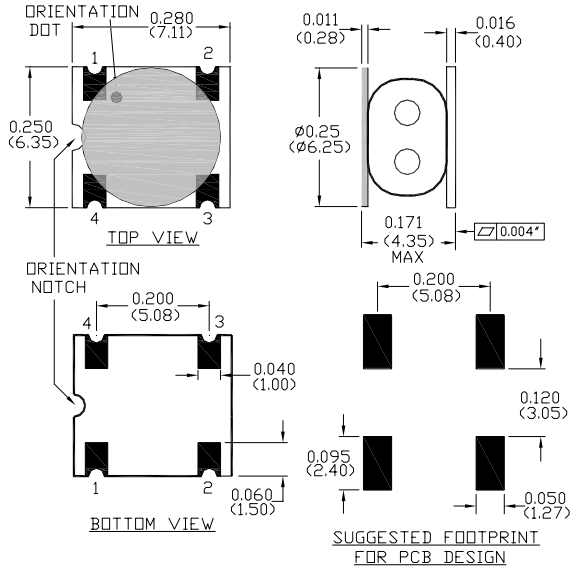
Schematic



Pin Configuration

Pin No.	Function
1	Input
2	Output Coupled Leg
3	Output Thru Leg
4	Ground

Case Style: SM-118A



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

Note: SM-118-A incorporates the plastic disk & also has the dot removed from the bottom of the PCB

Ordering Information

Part Number	Package
MABA-008184-CT1760	900
MABA-008184-CT17TB	Customer Test Board

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

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

- **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.

Electrical Specifications: T_A = 25°C, Power Level = 0dBm, Z_0 = 75Ω [1]

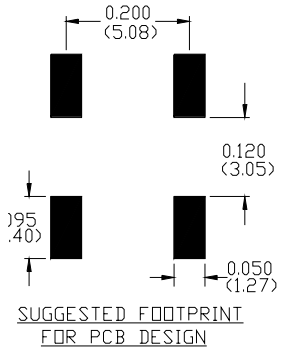
Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss Pin 1 - 2 (Coupled)	50 MHz 870 MHz	dB dB	- -	0.43 0.23	0.83 0.43
Insertion Loss Pin 1 - 3 (Thru)	50 MHz 870 MHz	dB dB	- -	0.23 0.73	0.43 1.3
Amplitude Imbalance	50 MHz 870 MHz	dB dB	-0.6 -0.73	0.2 0.4	0.6 0.73
Phase Imbalance	50 - 870 MHz	º	-3.23	1.2	3.23
Input Return Loss Pin 4	50 - 870 MHz	dB	18	22	-

Absolute Maximum Ratings [1,2]

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

Recommended PCB Configuration



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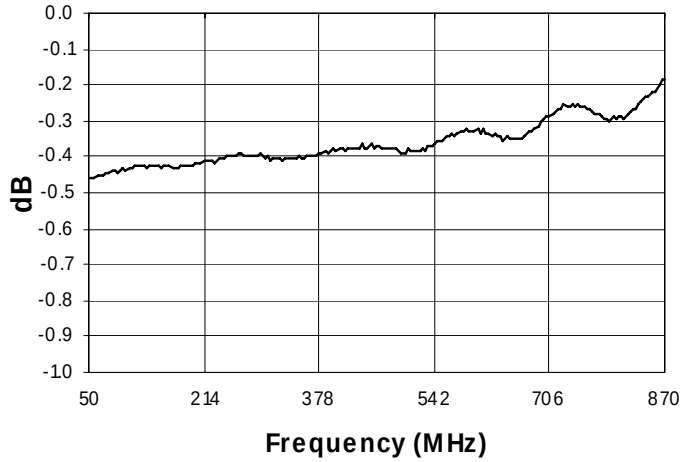
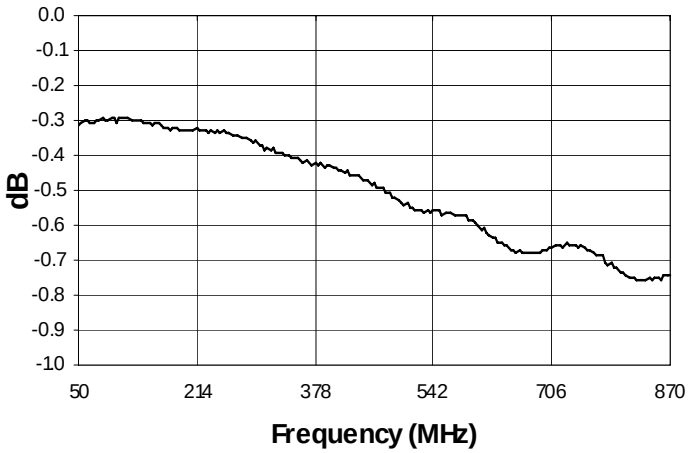
Typical Performance Curves: T_A = 25°C, Z_0 = 75Ω [1]

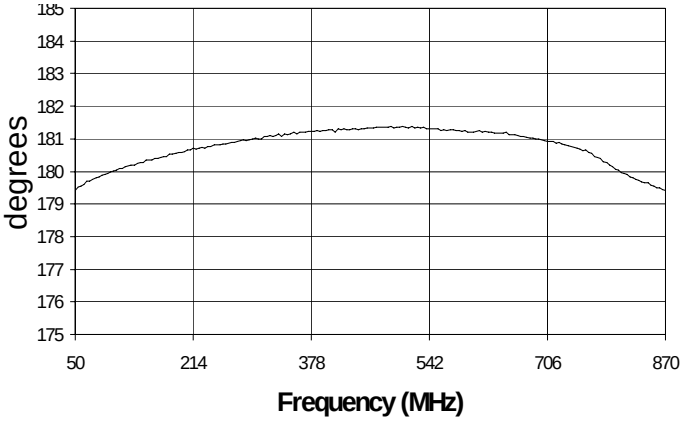
Insertion Loss Pin 1-2



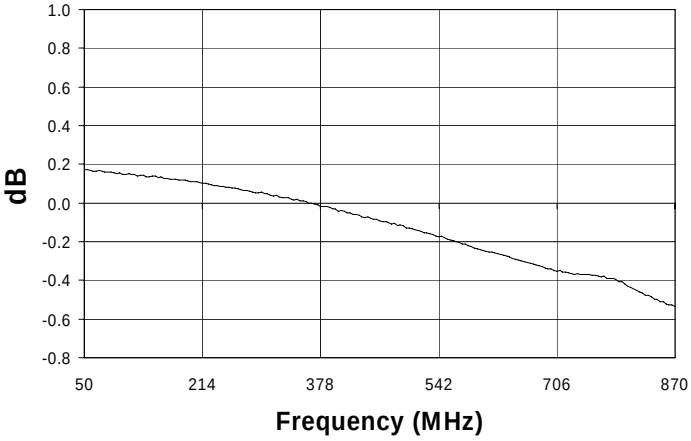
Insertion Loss Pin 1-3



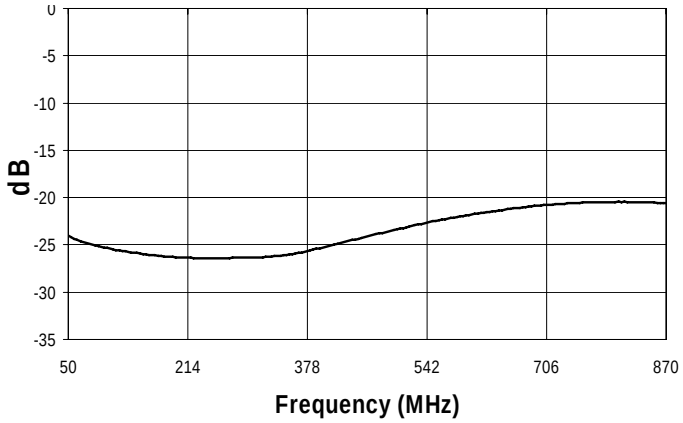
Amplitude Imbalance



Phase Imbalance



Return Loss: Input



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