



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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MABA-007327-CT1A40



Transformer, 1:1 Transmission Line Transformer
4.5 to 3000 MHz

Rev. V2

Features

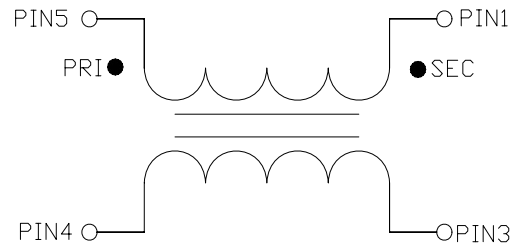
- 1:1 Impedance ratio
- Surface mount
- Available on tape and reel
- RoHS compliant and lead free
- 260°C reflow compatible
- Excellent temperature stability
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems

Description

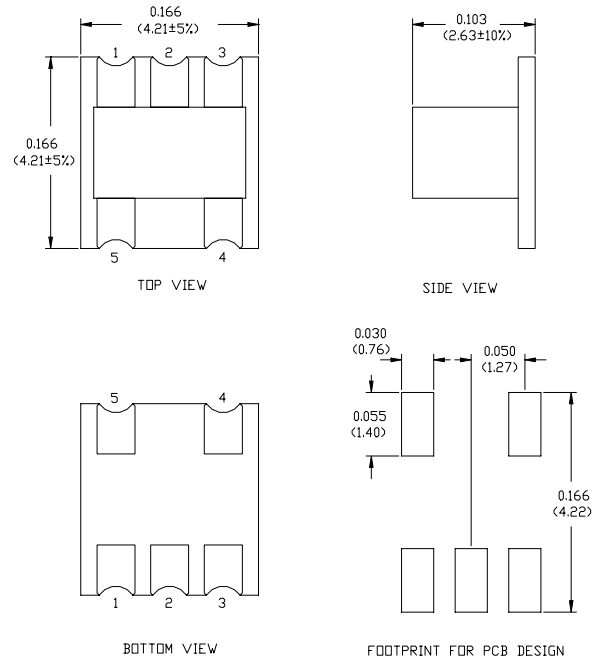
M/A-Com Technology Solutions MABA-007327-CT1A40 is a 1:1 RF transmission line transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications.



Schematic



Component dimensions



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

Pin Configuration

| Pin no. | Function |
|---------|---------------|
| 1 | Secondary Dot |
| 2 | Not connected |
| 3 | Secondary |
| 4 | Primary |
| 5 | Primary Dot |

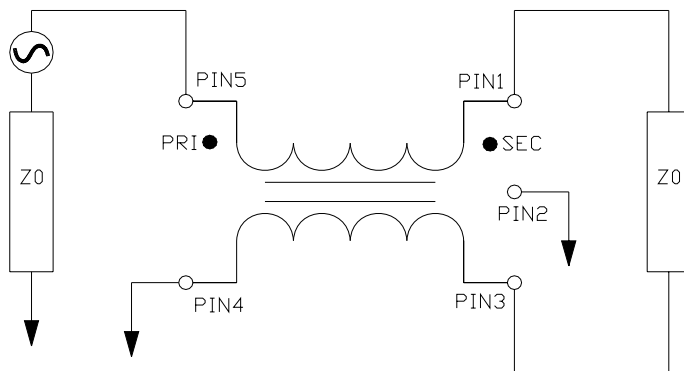
Electrical Specifications: $T_A = 25^\circ\text{C}$, 0dBm, $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

| Parameter | Frequency | Units | Min | Typ | Max |
|---------------------------------|-----------------|-------|-----|------------|------------|
| Insertion Loss 1 | 4.5 - 1000MHz | dB | - | 0.8 | 1.0 |
| | 1000 - 2000MHz | dB | - | 1.6 | 2.0 |
| | 2000 - 3000 MHz | dB | - | 2.5 | 3.5 |
| Amplitude Balance (Nominal 0dB) | 4.5 - 3000 MHz | dB | - | ± 0.50 | ± 1.0 |
| Phase Balance (Nominal 180°) | 4.5 - 3000 MHz | ° | - | ± 10.0 | ± 20.0 |
| | | | | | |

Recommended Maximum Ratings

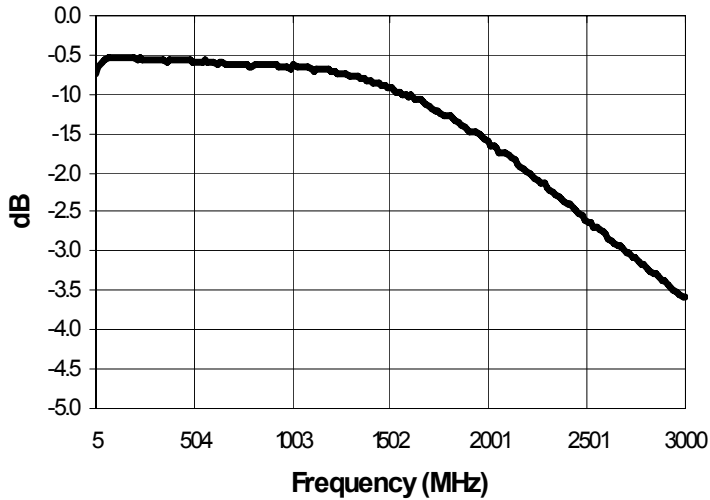
| Parameter | Value |
|-----------------------|-----------------|
| Input power | At least 250mW |
| DC current | At least 30mA |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -55°C to +100°C |

Application Circuit

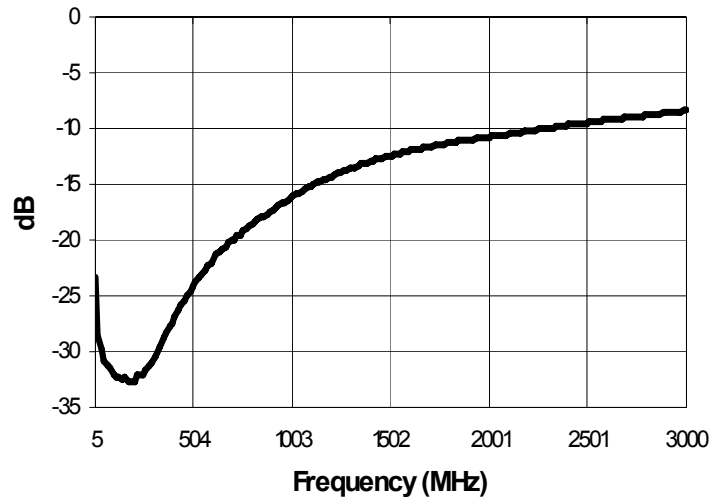


Typical Performance Curves: $T_A = 25^\circ\text{C}$, 0dBm , $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

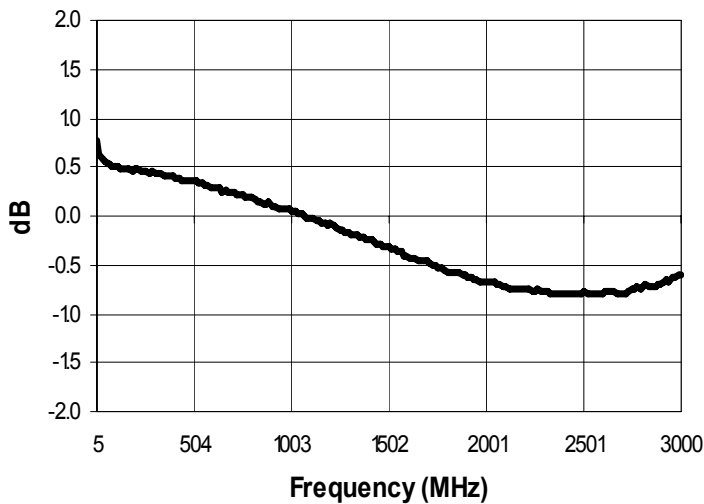
Insertion Loss



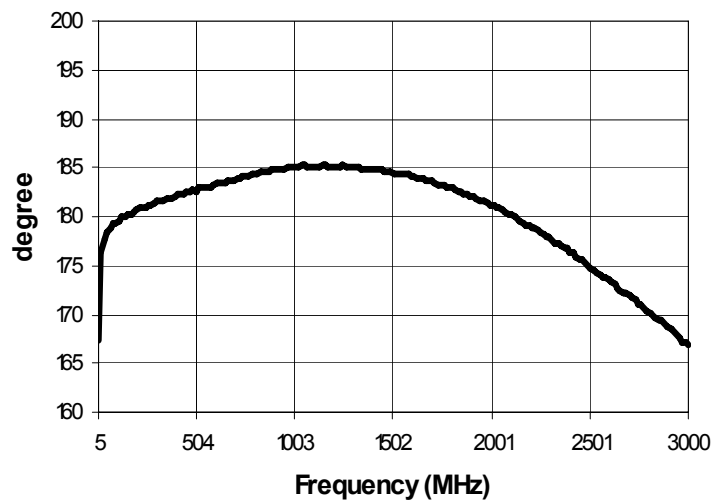
Return Loss: Input



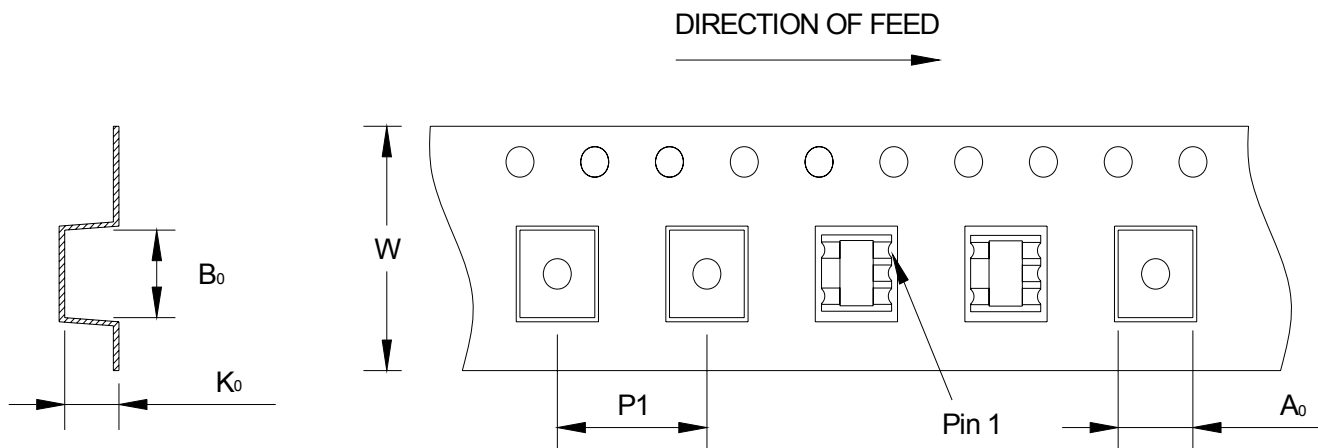
Amplitude Balance



Phase Balance



Tape & Reel Information



| Item | Dimension |
|------|------------------|
| Ao | 4.50mm +/- 0.1mm |
| Bo | 4.50mm +/- 0.1mm |
| Ko | 2.73mm +/- 0.1mm |
| W | 12.0mm +/- 0.3mm |
| P1 | 8.0mm +/- 0.1mm |

Ordering Information

| Part number | Description |
|--------------------|---------------------|
| MABA-007327-CT1A40 | 2000 piece reel |
| MABA-007327-CT1ATB | Customer Test Board |