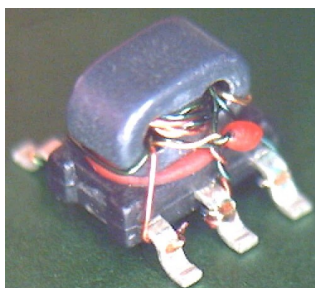


Features

- 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.



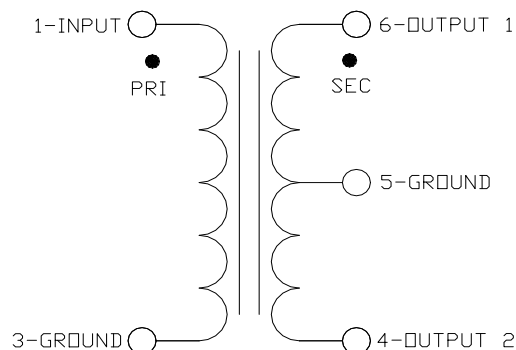
Pin Configuration

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

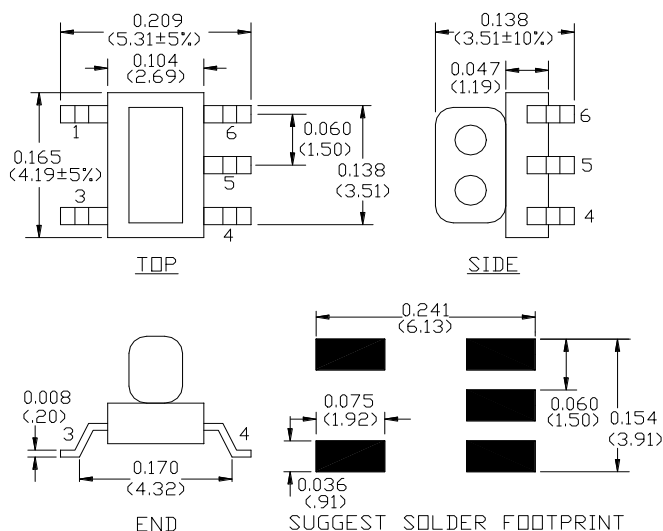
Note: Reference Application Note **M513** for reel size information.

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

Schematic



Case Style: SM-138



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

Ordering Information

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

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

Rev. V3

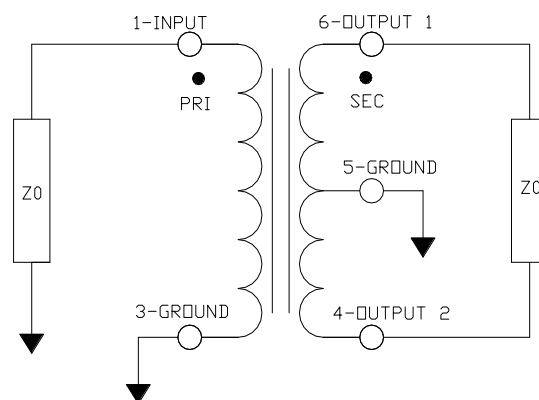
Electrical Specifications: $T_A = 25^\circ\text{C}$, 0dBm, $Z_0 = 75\Omega$

| 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°C |
| Storage Temperature | -55°C to +100°C |

Application Circuit

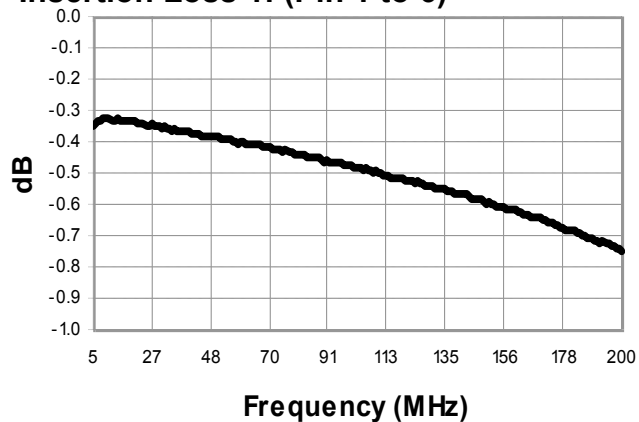


Transformer, 1:1 Flux Coupled Transformer
5 to 200 MHz

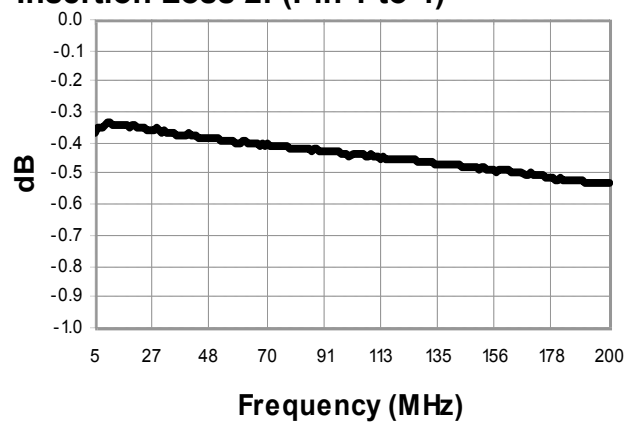
Rev. V3

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

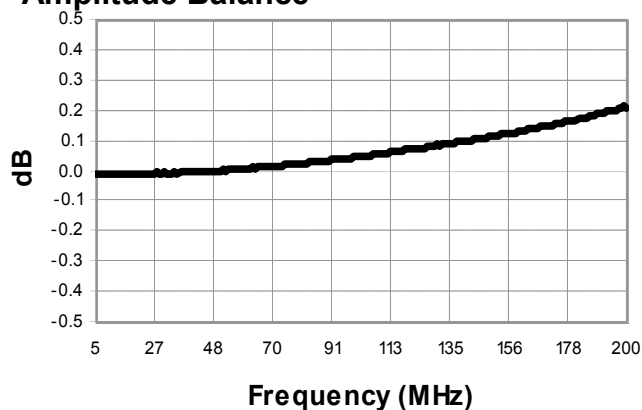
Insertion Loss 1: (Pin 1 to 6)



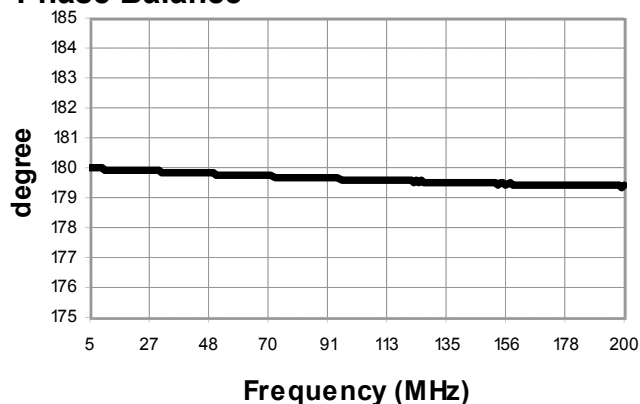
Insertion Loss 2: (Pin 1 to 4)



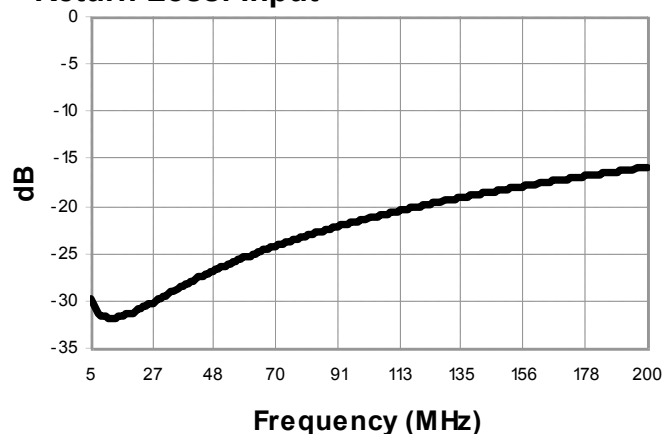
Amplitude Balance



Phase Balance



Return Loss: Input



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