

1:1 Flux Coupled Transformer 5 - 120 MHz

Rev. V3

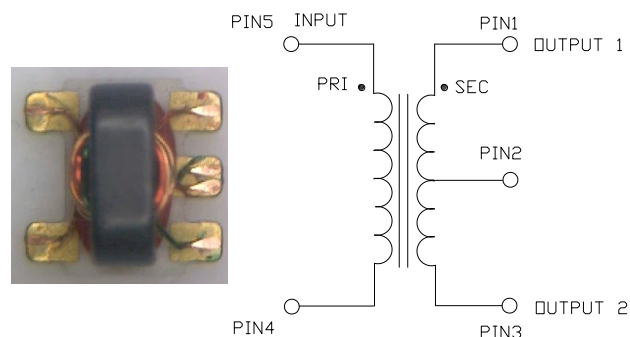
Features

- 1:1 Flux Coupled
- Surface Mount Package
- 260°C Reflow Compatible
- Excellent Temperature Stability
- RoHS Version of ETC1-1T-8, Lead Free

Description

The MABA-009650-CF1160 is a 1:1 flux coupled transformer. Suitable for use in both 50 Ω & 75 Ω systems. Designed for high volume CATV broadband applications.

Schematic



Pin Configuration

Pin #	Function
1	Secondary Dot (output 1)
2	Centre Tap
3	Secondary (output 2)
4	Primary (ground)
5	Primary Dot (input)

Electrical Specifications: Freq. = 5 - 120 MHz, $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$

Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss	5 - 120 MHz	dB	—	0.4	0.6
Amplitude Balance	5 - 120 MHz	dB	—	± 0.1	± 0.3
Phase Balance	5 - 120 MHz	$^\circ$	—	± 0.5	± 2.0
Input Return Loss	5 - 65 MHz 65 - 120 MHz	dB	22 17	28 23	—

Ordering Information

Part number	Description
MABA-009650-CF1160	2000 piece reel
MABA-009650-CF11TB	customer test board

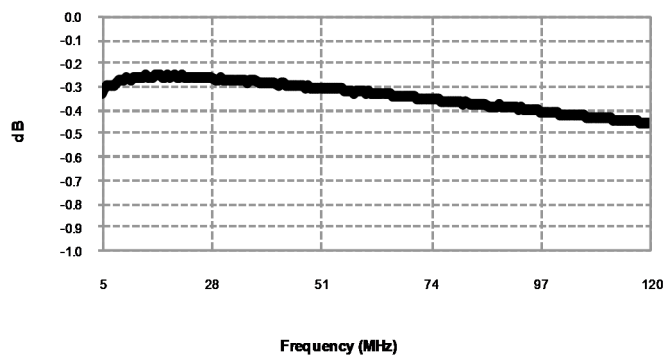
Reference Application Note **M513** for reel size information.

Recommended Maximum Ratings

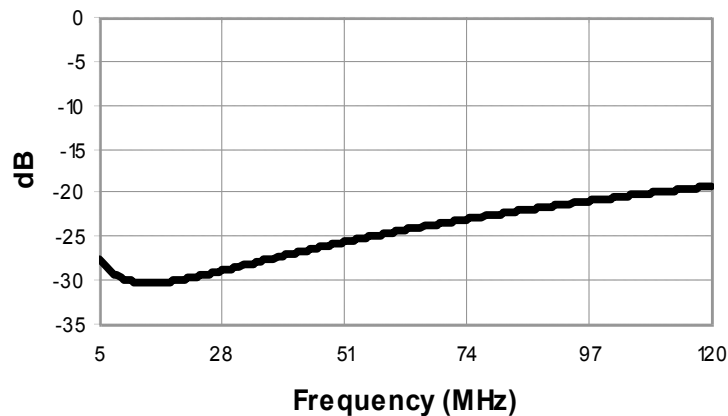
Parameter	Value
RF Power	250 mW
DC current	30 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

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

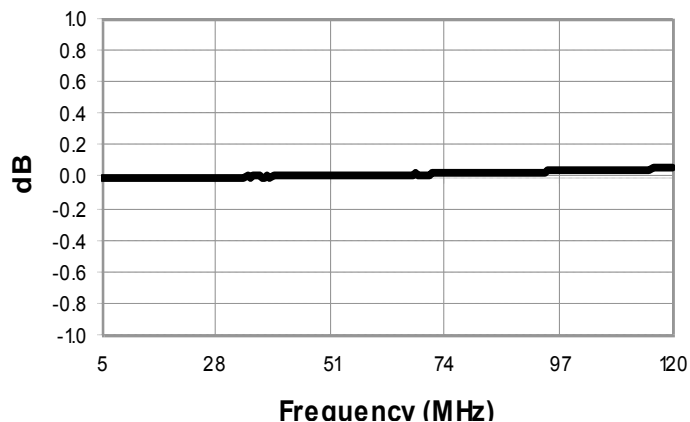
Insertion Loss



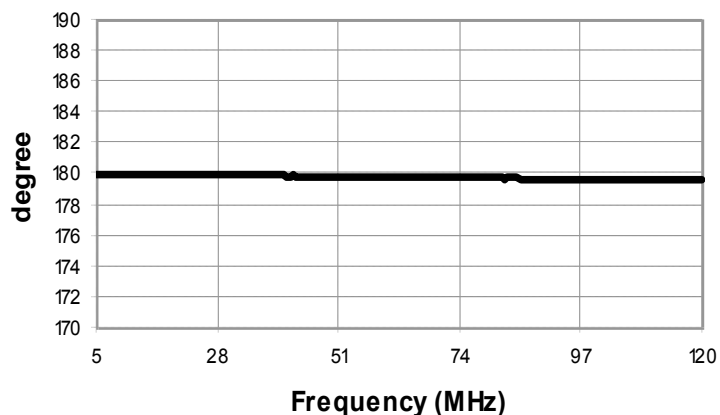
Return Loss: Input



Amplitude Balance



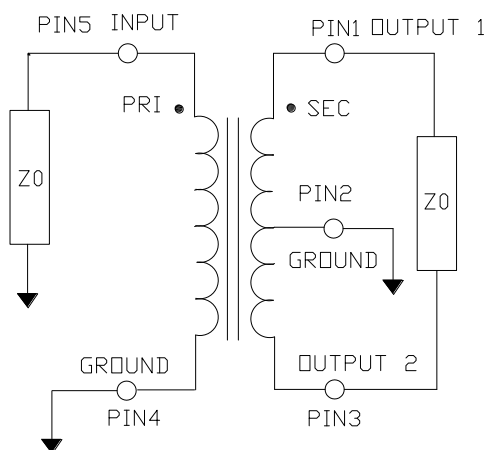
Phase Balance



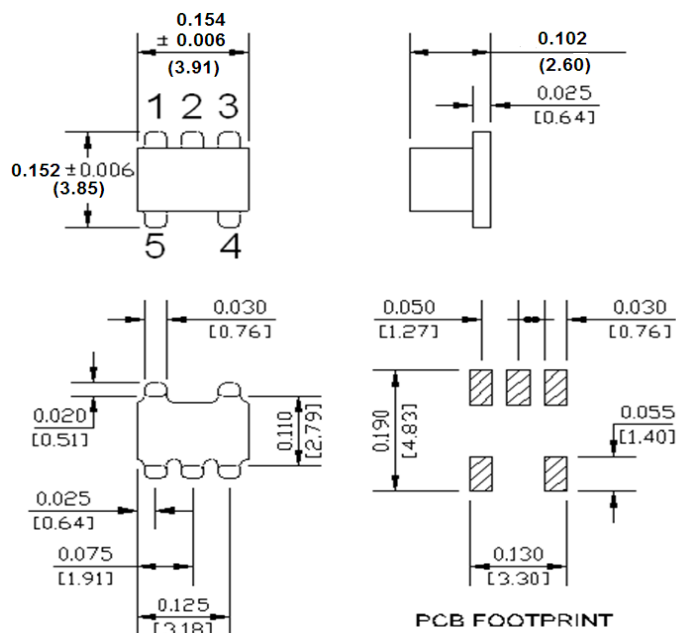
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Application Circuit

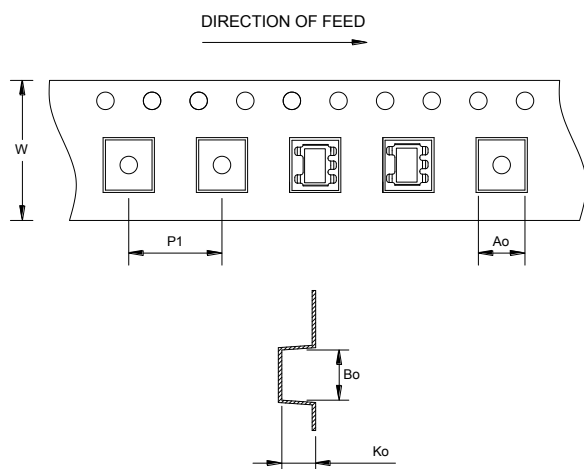


Case Style SM-22



Dimensions are inches (millimeters) ± 0.015 (0.38) unless otherwise specified.
Drawing not to scale.

Tape & Reel Information



Dimensions

Item	Dimension (mm)
A _o	4.00 ± 0.1
B _o	4.30 ± 0.1
K _o	2.90 ± 0.1
W	12.00 ± 0.3
P1	8.00 ± 0.1

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