

RF 2:1 Flux Coupled Transformer 1.0 - 350 MHz

Rev. V2

Features

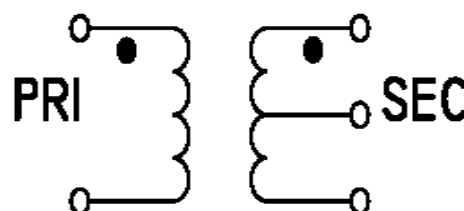
- Surface mount
- 2:1 impedance
- CT on Secondary
- RoHS* Compliant
- 260°C reflow compatible.
- Available on Tape and Reel

Description

MABAES0040 is a 2:1 RF flux coupled transformer in a low cost, surface mount package. Ideally suited for high volume cellular and wireless applications. Typical applications include single to balanced mode conversion and impedance matching.



Schematic



Ordering Information

Part Number	Package
MABA-009387-ES0040	2000 piece reel

Pin Configuration

Pin No.	Function
1	Secondary Dot
2	Secondary CT
3	Secondary
4	Primary
5	Primary Dot

* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

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Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\ \Omega$

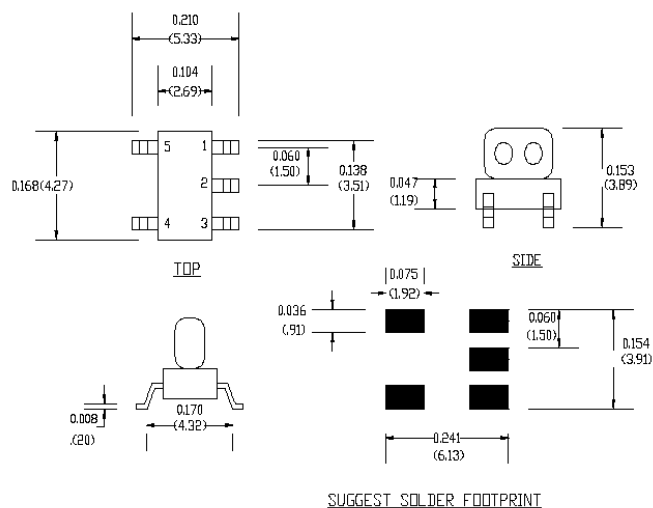
Parameter	Test Conditions	Units	Min	Typ	Max
RF Frequency	1 - 350	MHz	—	—	—
Insertion Loss	1 - 150	dB	—	0.7	1.0
	150 - 250			1.6	2.0
	250 - 350			2.6	3.0
Amplitude Unbalance	1 - 150	dB	—	0.3	0.5
	150 - 250			0.7	1.0
	250 - 350			1.5	2.0
Phase Unbalance	1 - 250	Degree	—	2.5	5.0
	250 - 350			8.0	12.0

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
DC Power	250 mW
DC Current	30 mA
Operating Temperature	-40°C to $+85^\circ\text{C}$
Storage Temperature	-55°C to $+125^\circ\text{C}$

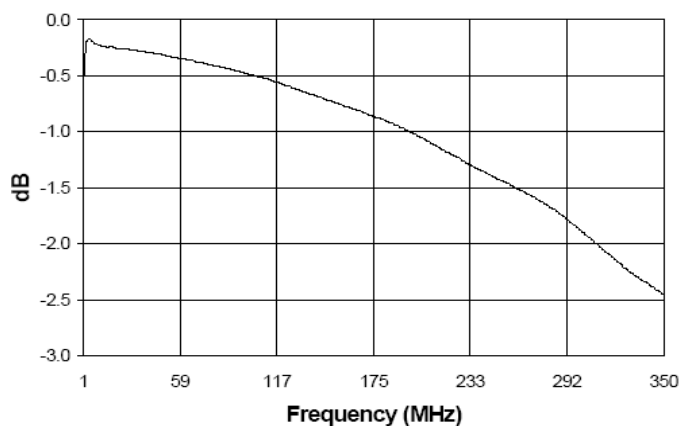
- Exceeding any one or combination of these limits may cause permanent damage to this device.
- MACOM does not recommend sustained operation near these survivability limits.

SM-138 package

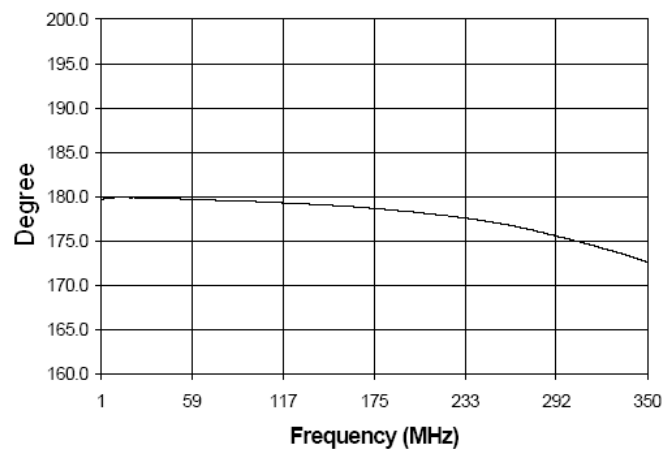


Typical Performance Curves

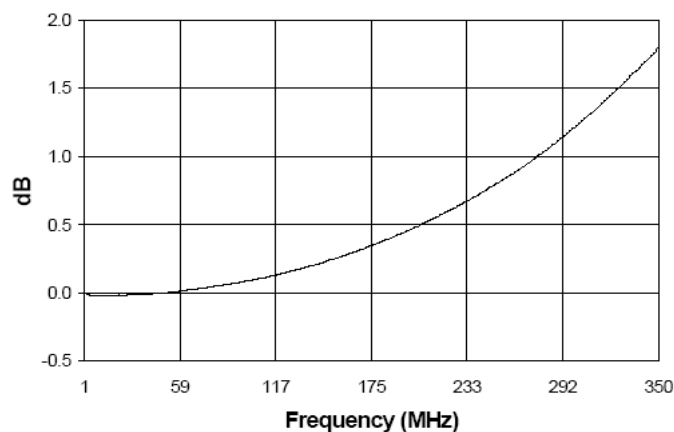
Insertion Loss



Phase Unbalance



Amplitude Unbalance



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