

MABA-011032

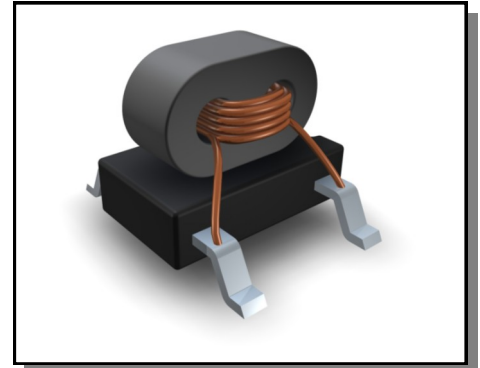


**Transformer, 1:3
40 MHz - 1000MHz**

Rev. V2

Features

- 1:3 impedance ratio
- Surface mount
- Available on tape and reel
- 260°C reflow compatible
- RoHS Compliant and Pb free
- Excellent temperature stability
- Can be used on 50Ω and 75Ω systems



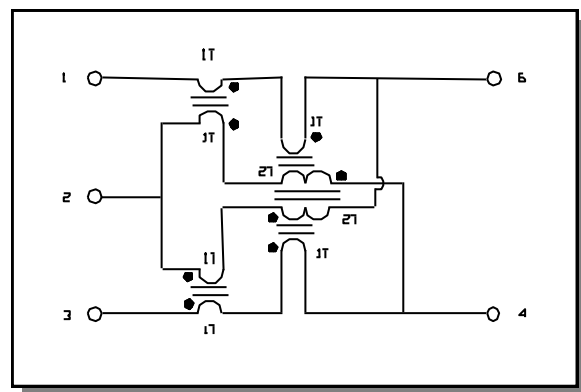
Electrical Specifications: $Z_0 = 75\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

| Parameter | Conditions | Units | Min | Typ | Max |
|-----------------------------------|----------------|----------|-----|-----|-----------|
| Frequency Range | | MHz | 40 | | 1000 |
| Impedance | | Ω | | 75 | |
| Impedance Ratio | | | | 1:3 | |
| Insertion Loss1 (Pin4 to Pin3) | 40 - 500 MHz | dB | - | 1.0 | 1.7 |
| | 500 - 1000 MHz | dB | - | 1.2 | 2.5 |
| Insertion Loss2 (Pin4 to Pin1) | 40 - 500 MHz | dB | - | 1.5 | 2.0 |
| | 500 - 1000 MHz | dB | - | 2.0 | 3.2 |
| Amplitude Unbalance | 40 - 500 MHz | dB | - | 0.5 | ± 1.3 |
| | 500 - 1000 MHz | dB | - | 0.8 | ± 1.7 |
| Phase Balance | 40 - 500 MHz | $^\circ$ | - | 11 | ± 21 |
| | 500 - 1000 MHz | $^\circ$ | - | 22 | ± 32 |
| Input Return Loss | 40 - 500 MHz | dB | 13 | 17 | - |
| | 500 - 1000 MHz | dB | 11 | 13 | - |

Pin Configuration

| Pin No. | Function |
|---------|------------|
| 1 | Output 2 |
| 2 | Centre tap |
| 3 | Output 1 |
| 4 | Input |
| 6 | Ground |

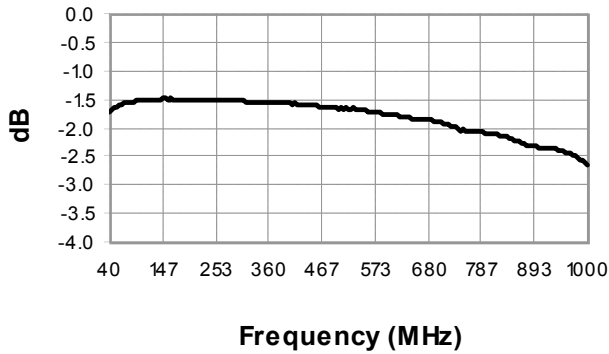
Schematic



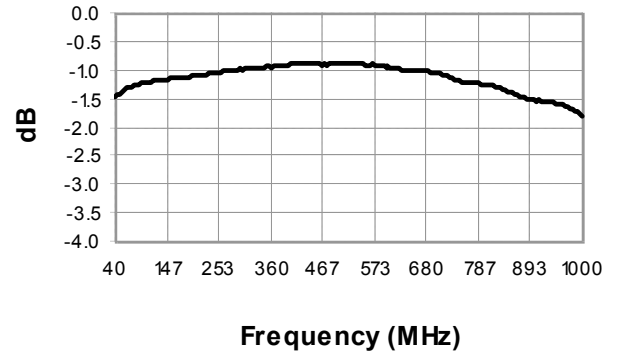
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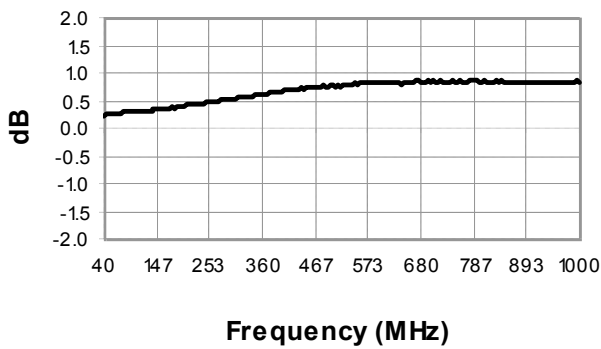
Insertion Loss: Pin4—Pin3



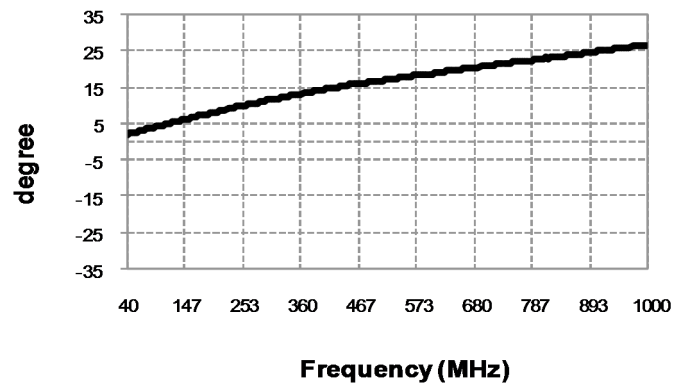
Insertion Loss: Pin4—Pin1



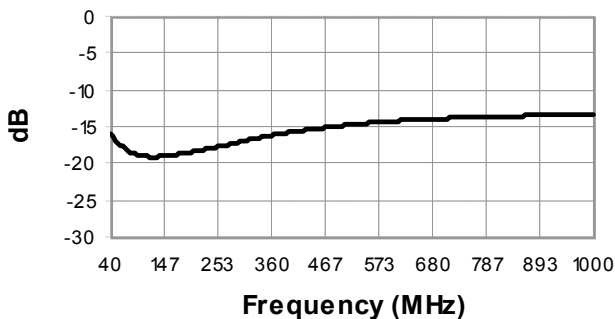
Amplitude Balance



Phase Balance



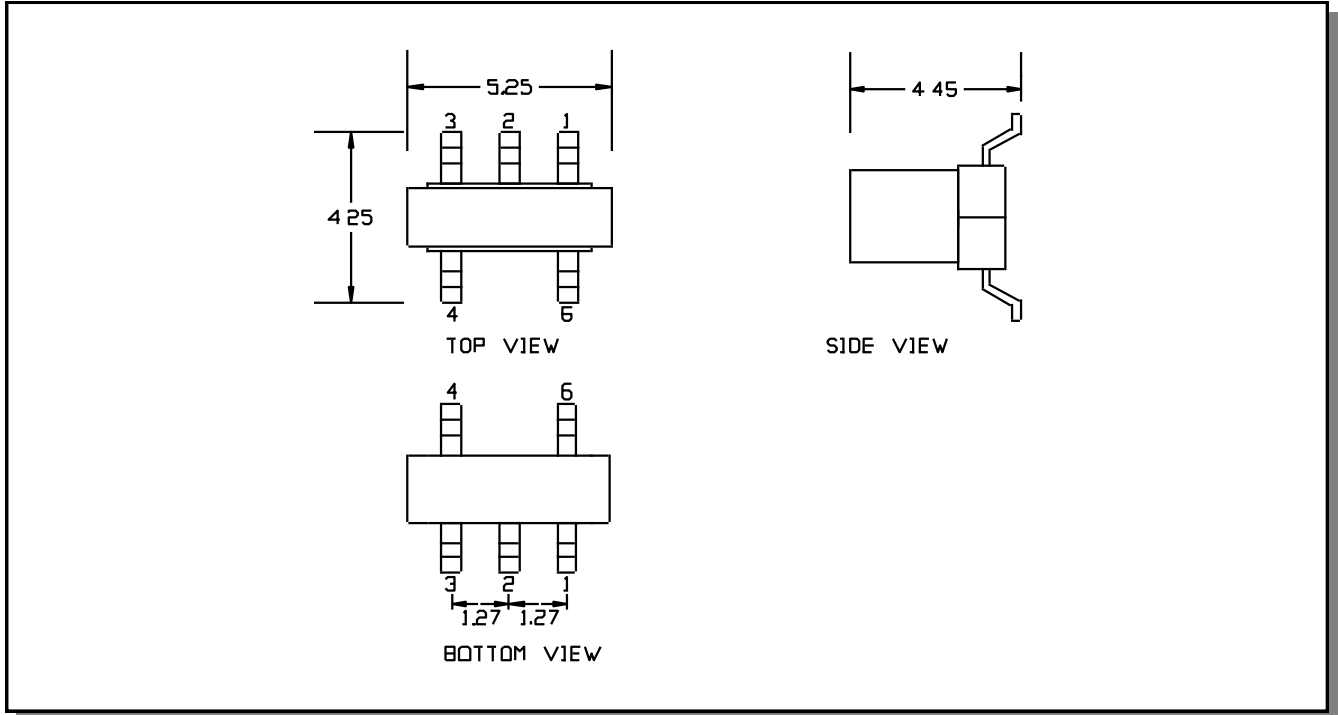
Return Loss: Input



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40 MHz - 1000MHz

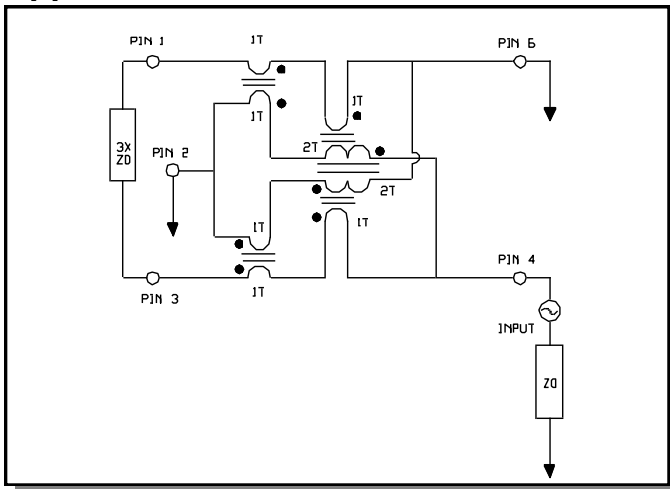
Rev. V2

Outline Drawing

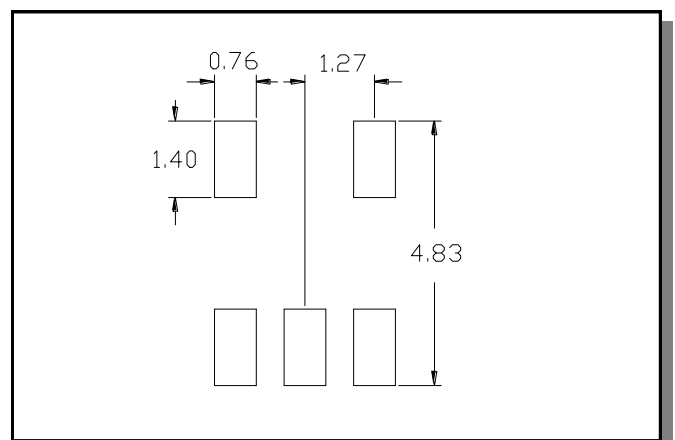


1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Finish: CuSn6

Application Circuit



Recommended Footprint



Tape & Reel Information

| Parameter | Units | Value |
|----------------|-------|-------|
| Qty per reel | - | 2000 |
| Reel size | mm | 330 |
| Tape width | mm | 12.00 |
| Pitch | mm | 8.00 |
| A ₀ | mm | 4.50 |
| B ₀ | mm | 5.40 |
| K ₀ | mm | 4.70 |
| Orientation | - | F28 |

Ordering Information

| Part Number | Description |
|-------------|-------------|
| MABA-011032 | Tape & Reel |
| | |

Recommended Maximum Ratings

| Parameter | Units | Min | Max |
|-----------------------------|-------|-----|-----|
| Input Power | mW | | 250 |
| DC Current | mA | | 200 |
| Operating Temperature Range | °C | -40 | +85 |

Temperature data available on request

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5

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