# MABAES0025

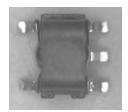
# E-Series RF 1.5:1 Transformer 5 - 350 MHz

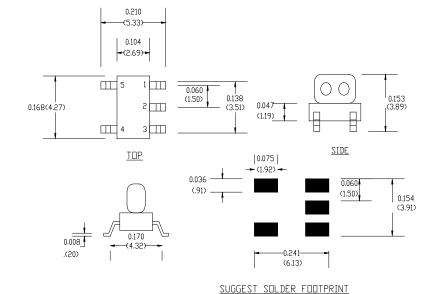


# SM-138 Package

#### Features

- Surface Mount
- 1.5:1 Impedance Ratio
- CT on Primary.
- Available on Tape and Reel

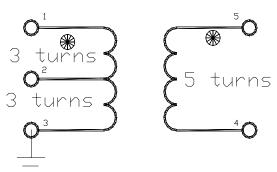




# Description

M/A-COM's MABAES0025 is a 1.5:1 RF transformer in a low cost, surface mount package. Ideally suited for high volume cellular wireless applications. Typical applications include single to balanced mode conversion and impedance matching.

#### Schematic



#### **Electrical Specifications @25°C**

| Parameter             | Units | Typical | Minimum | Maximum |
|-----------------------|-------|---------|---------|---------|
| Frequency Range 5-350 | MHz   | _       | —       |         |
| Insertion Loss        |       |         |         |         |
| 5 - 200 MHz           | dB    | 0.7     | _       | 1.0     |
| 200-350 MHz           | dB    | 1.4     | —       | 2.0     |
| Amplitude Imbalance   |       |         |         |         |
| 5-200 MHz             | dB    | 0.2     | —       | 0.5     |
| 200-350 MHz           | dB    | 0.4     |         | 1.0     |
|                       |       |         |         |         |
| Phase Imbalance       |       |         |         |         |
| 5 - 200 MHz           | 0     | 1.0°    | —       | 2.0°    |
| 200-350 MHz           | 0     | 2.0°    | —       | 3.0°    |

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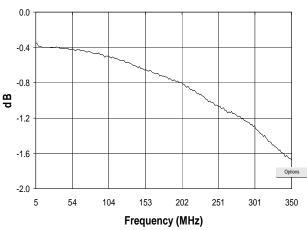
## **Absolute Maximum Ratings**

| Parameter             | Absolute Maximum |  |  |
|-----------------------|------------------|--|--|
| RF Power              | 250 mW           |  |  |
| DC Current            | 200 mA           |  |  |
| Operating Temperature | -40°C to +85°C   |  |  |
| Storage Temperature   | -40°C to +85°C   |  |  |

### **Functional Configuration**

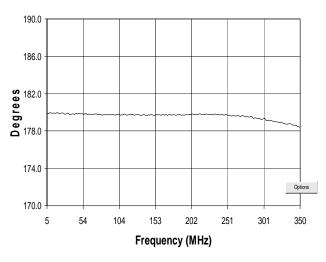
| Function      | Pin No. |
|---------------|---------|
| Primary Dot   | 1       |
| Primary CT    | 2       |
| Primary       | 3       |
| Secondary     | 4       |
| Secondary Dot | 5       |
| Secondary CT  | —       |
| Case Ground   | —       |
| Not Connected | —       |

# Typical Performance @ +25°C

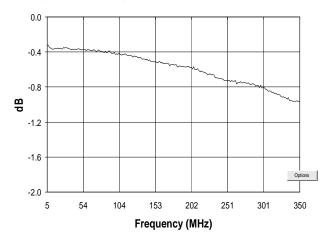


**Primary to Secondary Dot Insertion Loss** 

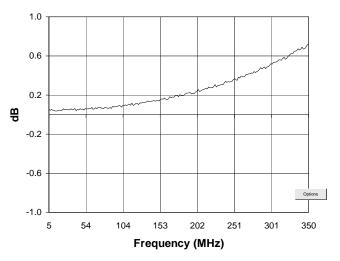
#### **Phase Imbalance**



#### **Primary to Secondary Insertion Loss**



#### **Amplitude Imbalance**



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