

Features

- n Relay Header Case
- n Multioctave Frequency Coverage
- n Conversion Loss: 12 dB Midband
- n Impedance: 50 Ohms Nominal
- n Maximum Input Power: 300 mW Max.
- n MIL-STD-883 Screening Available

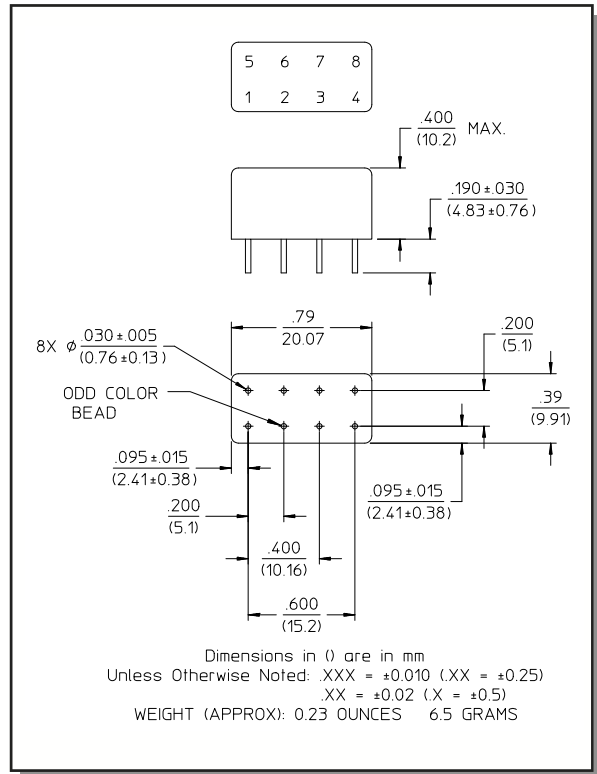
Description

A transmission line balun transformer connects to Schottky diodes arranged in a bridge configuration. This design allows balanced activation of all diodes, and yields excellent conversion loss, and odd-order term suppression.

Pin Configuration

| Pin No. | Function | Pin No. | Function |
|---------|----------|---------|----------|
| 1 | Input | 5 | GND |
| 2 | GND | 6 | GND |
| 3 | GND | 7 | GND |
| 4 | GND | 8 | Output |

RH-3



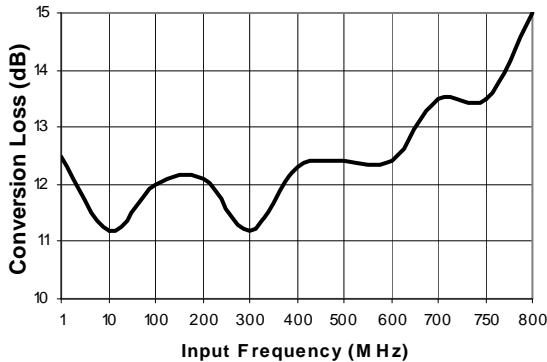
Electrical Specifications¹: T_A = -55°C to +85°C

| Parameter | Test Conditions | Frequency | Units | Min | Typ | Max |
|--|-----------------|---------------|-------|-----|--------|------|
| Frequency Range | Input | 10 - 750 | MHz | — | — | — |
| | Output | 20 - 1500 | MHz | — | — | — |
| Conversion Loss | | 10 - 500 MHz | dB | — | — | 14.5 |
| | | 500 - 750 MHz | dB | — | — | 15.5 |
| Spurious (Referred to Output F ₂ Level) | F ₁ | 10 - 100 MHz | dB | 25 | — | — |
| | | 100 - 300 MHz | dB | 20 | — | — |
| | | 300 - 500 MHz | dB | 15 | — | — |
| | | 500 - 750 MHz | dB | 10 | — | — |
| | F ₃ | 30 - 300 MHz | dB | 35 | — | — |
| | | 300 - 900 MHz | dB | 30 | — | — |
| VSWR | Input | — | Ratio | — | <2.0:1 | — |
| Conversion Loss as Quadrupler | — | — | dB | — | 30 | — |

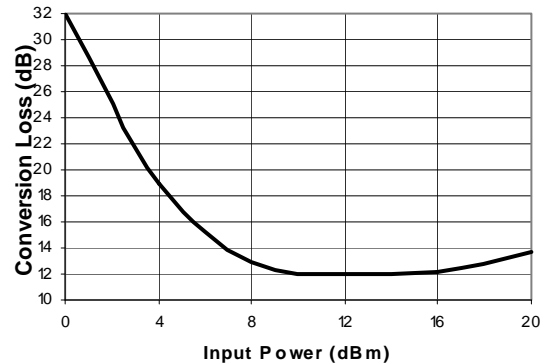
1. All specifications apply when operated at +13 dBm input power with 50 ohm source and load impedance.

Typical Performance Curves

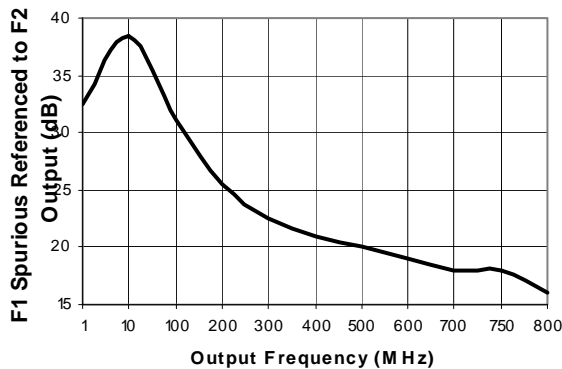
Conversion Loss



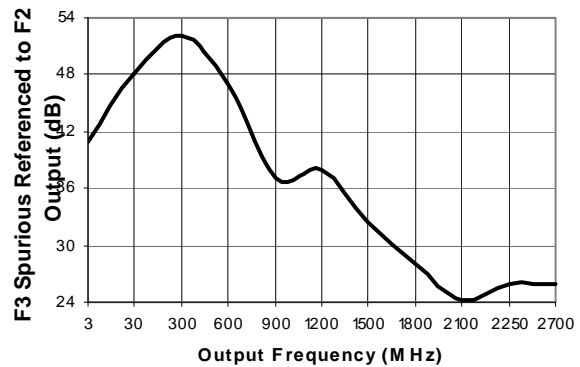
Conversion Loss vs. Input Power



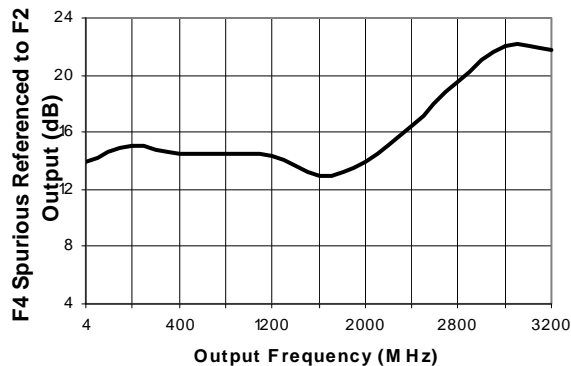
Spurious Response



Spurious Response



Spurious Response



Ordering Information

| Part Number | Package |
|-------------|---------|
| FM-105 PIN | RH-3 |