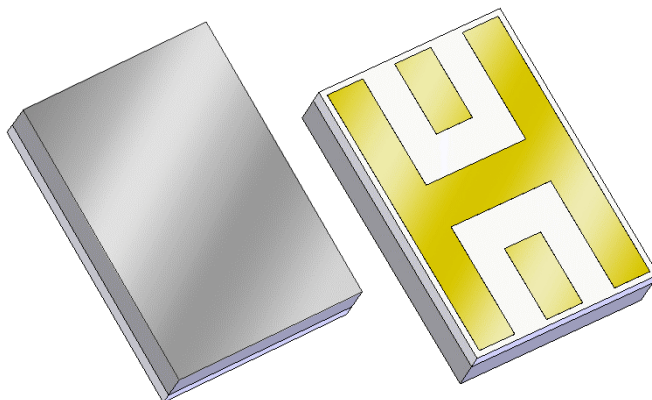


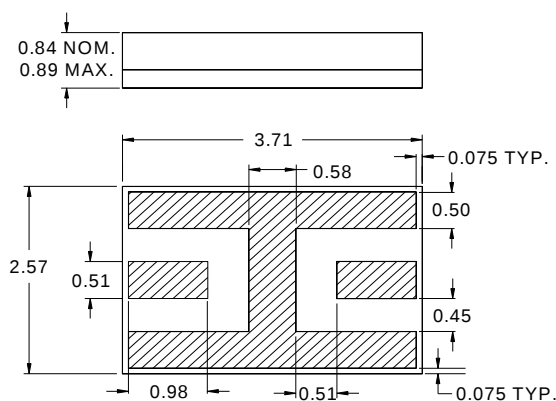
## Features

- SSR/IFF filter
- Usable bandwidth of 14 MHz
- Single-ended operation
- Ceramic Surface Mount Package
- Hermetic



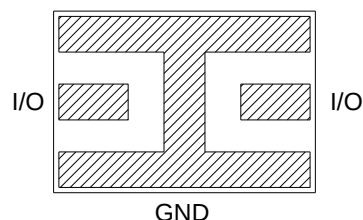
## Package

Surface Mount 3.71 x 2.57 x 0.84 mm



## Pin Configuration

Bottom View



| Pin No. | Description  |
|---------|--------------|
| I/O     | Input/Output |
| GND     | Ground       |

Overall width, length, and thickness are the only critical dimensions. All other dimensions are for reference only.

Dimensions shown are nominal in millimeters  
All tolerances are  $\pm 0.13\text{mm}$  except overall  
length and width  $\pm 0.25\text{mm}$

Body: *Sapphire*  
Package: *Alumina*  
Terminations: *Au* plating 0.5 - 2.5 $\mu\text{m}$ ,  
over a 2.0 – 6.0  $\mu\text{m}$  *Ni* plating

## Electrical Specifications <sup>(1)</sup>

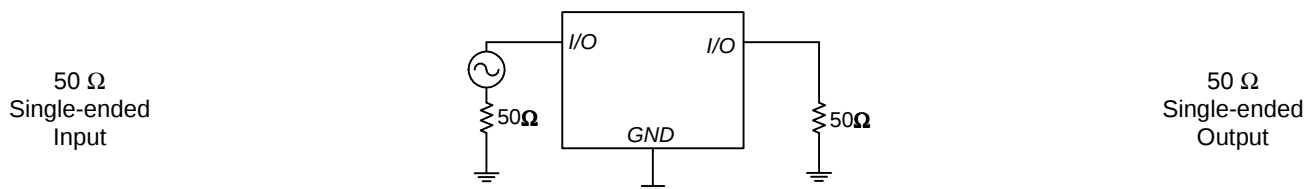
Operating Temperature Range: <sup>(2)</sup> -40 to +85 °C

| Parameter <sup>(3)</sup>         | Minimum | Typical | Maximum | Unit |
|----------------------------------|---------|---------|---------|------|
| Center Frequency                 | -       | 1030    | -       | MHz  |
| Insertion Loss (1027 – 1033 MHz) | -       | 2.5     | 4.0     | dB   |
| 3 dB Bandwidth <sup>(4)</sup>    | 14      | 20      | -       | MHz  |
| 40 dB Lower Frequency Edge       | 1007.5  | -       | -       | MHz  |
| 40 dB Upper Frequency Edge       | -       | -       | 1052.5  | MHz  |
| VSWR @ Fo                        | -       | 1.7     | 2:1     |      |
| Source Impedance                 | -       | 50      | -       | Ω    |
| Load Impedance                   | -       | 50      | -       | Ω    |

### Notes:

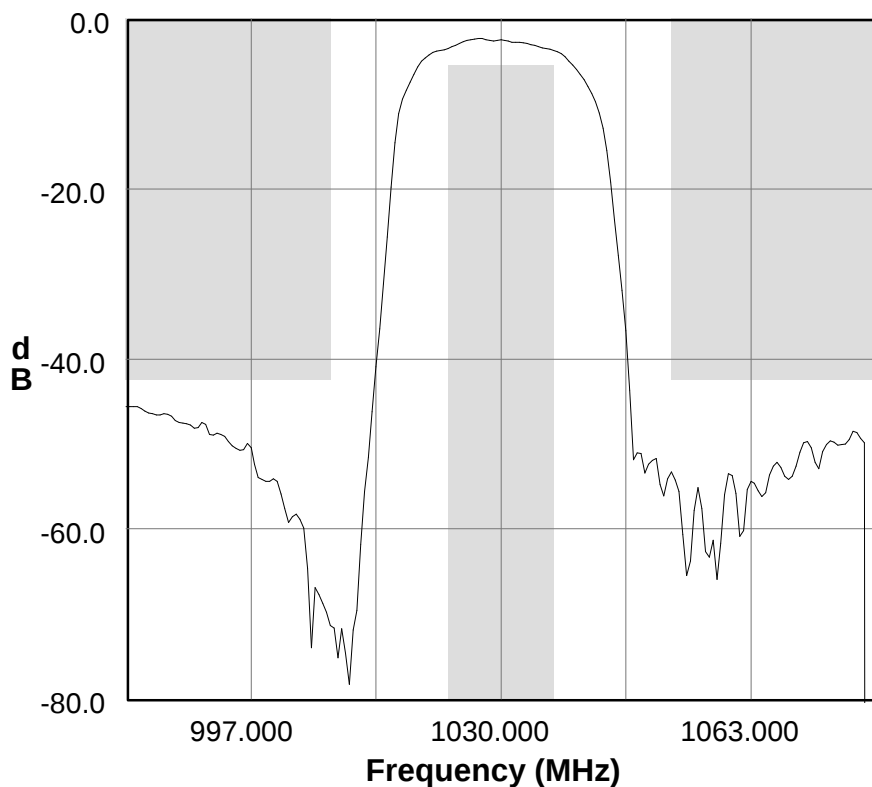
1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. Referenced to the insertion loss at center frequency

### Test Circuit:

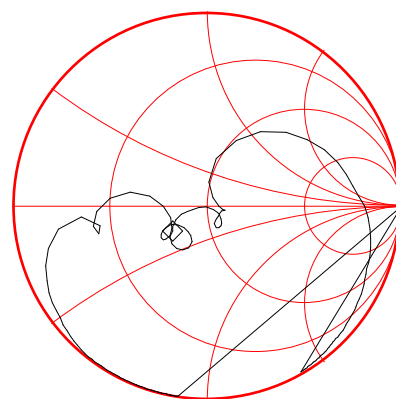


**Typical Performance (at +25°C)**

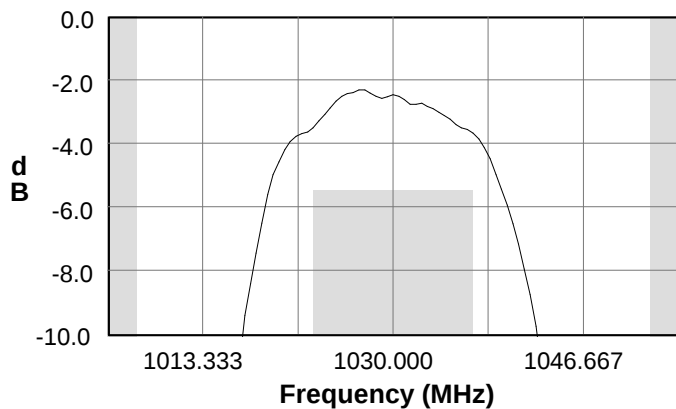
**S21 Amplitude Response**



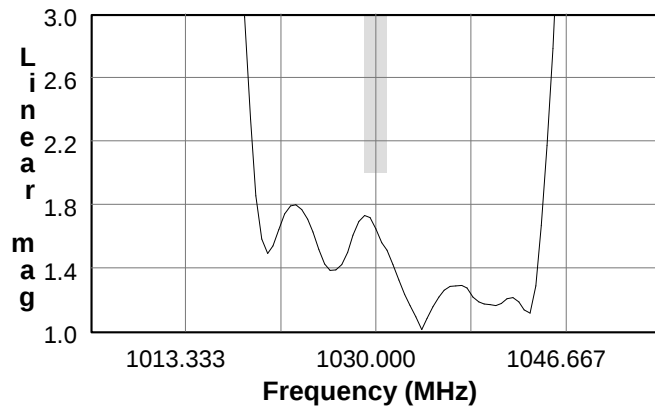
**S11 Smith Chart**



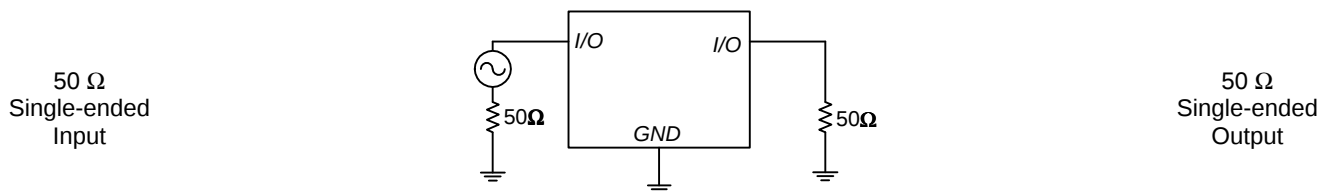
**S21 Amplitude Response**



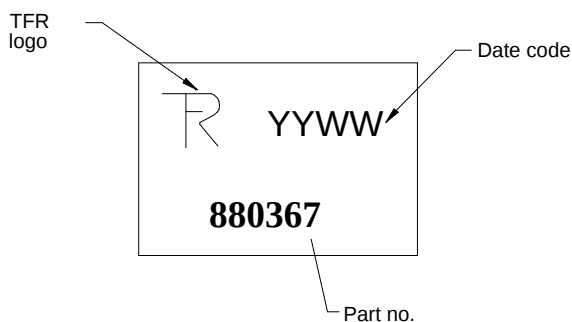
**S11 VSWR**



## Matching Schematics

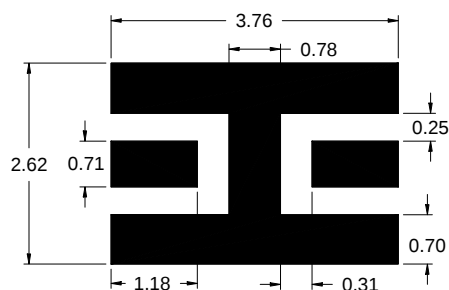


## Marking



The date code consists of: YY = last digit of year,  
WW = 2 digit week

## PCB Footprint



This footprint represents a recommendation only  
Dimensions shown are nominal in millimeters

## Tape and Reel

Tape and Reel available upon request  
EIA-481

Tinning available per J-STD-001

ROHS compliant (no tinning)  
DFARS compliant

### Maximum Ratings

| Parameter                   | Symbol           | Minimum | Maximum | Unit |
|-----------------------------|------------------|---------|---------|------|
| Operating Temperature Range | T                | -40     | +85     | °C   |
| Storage Temperature Range   | T <sub>stg</sub> | -55     | +100    | °C   |

### Warnings

- Electrostatic Sensitive Device (ESD)
- Avoid ultrasonic exposure



### Links to Additional Technical Information

[PCB Layout Tips](#)

[Qualification Flowchart](#)

[Soldering Profile](#)

[S-Parameters](#)

[Other Technical Information](#)

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