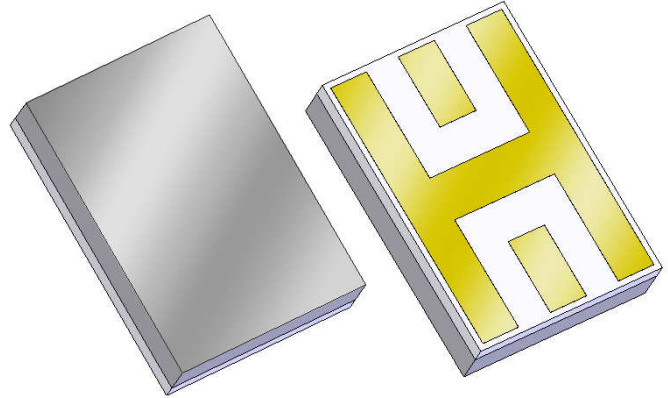


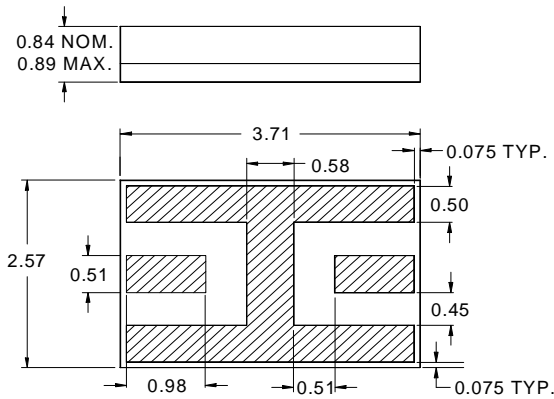
**Features**

- Usable bandwidth of 20 MHz
- Single-ended operation
- Ceramic Surface Mount Package
- Hermetic



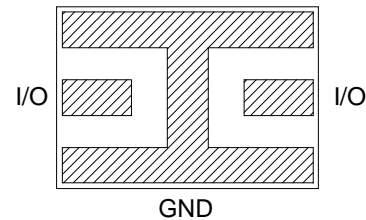
**Package**

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>**

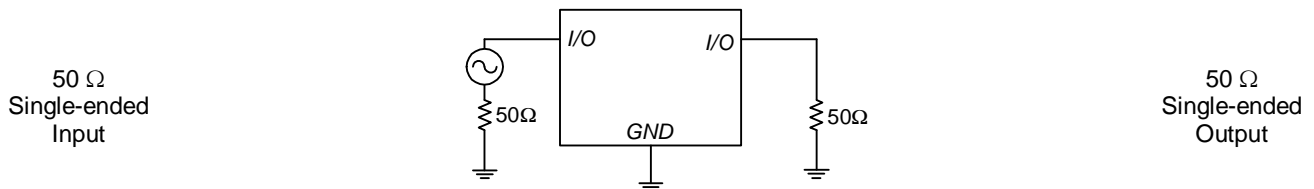
Operating Temperature Range: <sup>(2)</sup> -40 to +85 °C

Parameter <sup>(3)</sup>	Minimum	Typical	Maximum	Unit
Center Frequency	705	710	715	MHz
Insertion Loss @ Fo	-	2.5	4	dB
3 dB Bandwidth <sup>(4)</sup>	18	21	-	MHz
50 dB Lower Frequency Edge	640	-	-	MHz
50 dB Upper Frequency Edge	-	-	780	MHz
VSWR @ Fo +/- 5MHz	-	1.8	2.25:1	
Source Impedance	-	50	-	$\Omega$
Load Impedance	-	50	-	$\Omega$

**Notes:**

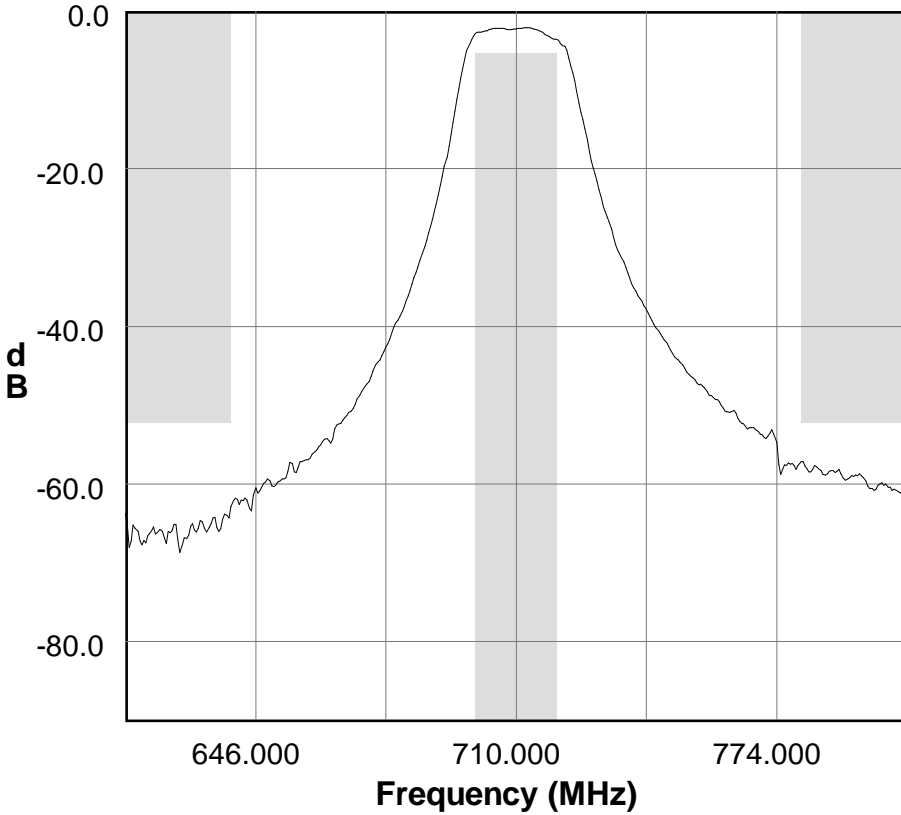
1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature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

**Test Circuit:**

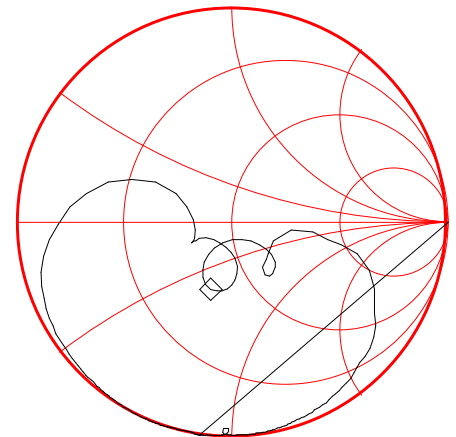


**Typical Performance (at +25°C)**

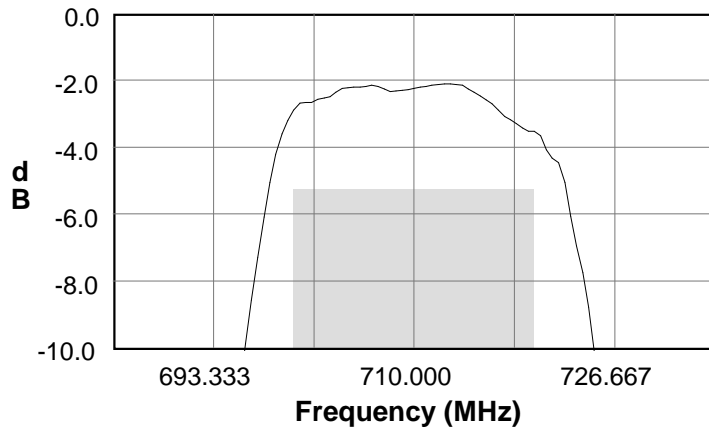
**S21 Amplitude Response**



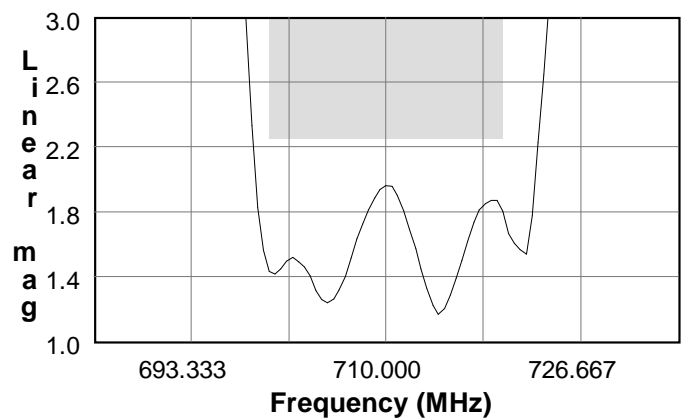
**S11 Smith Chart**



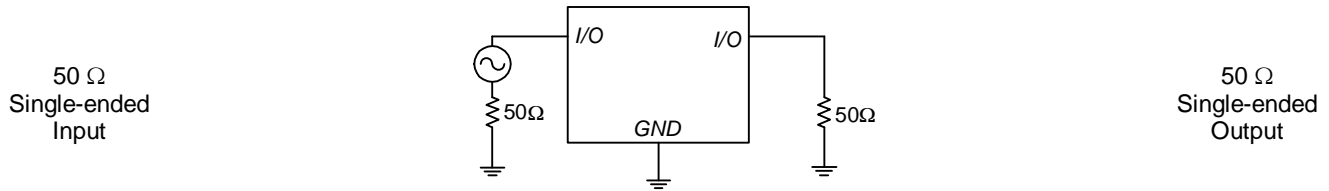
**S21 Amplitude Response**



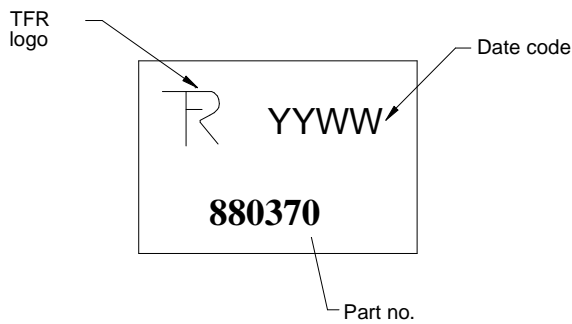
**S11 VSWR**



**Matching Schematics**

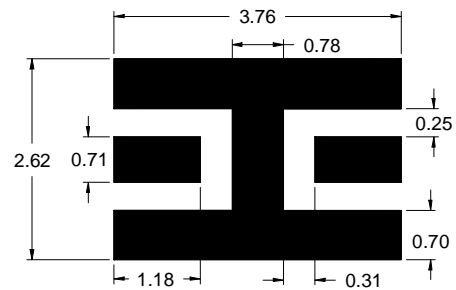


**Marking**



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](#)

Sawtek's liability is limited only to the Bulk Acoustic Wave (BAW) component(s) described in this data sheet. Sawtek does not accept any liability for applications, processes, circuits or assemblies, which are implemented using any Sawtek component described in this data sheet.

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[Representatives or distributors](#)