
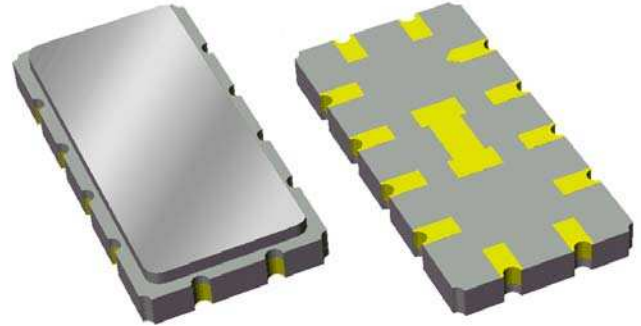


# Data Sheet

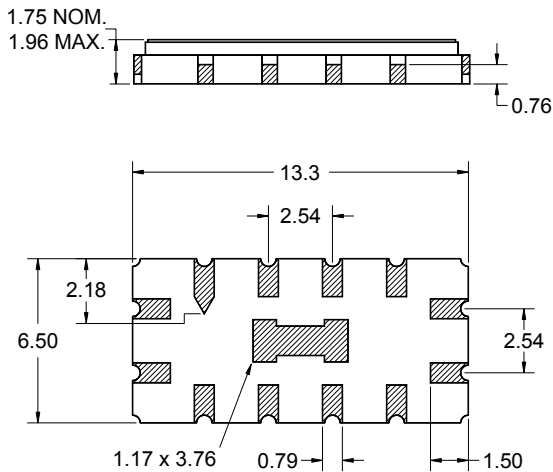
## Features

- Usable bandwidth of 7.0 MHz
- Typical 3 dB bandwidth of 7.4 MHz
- Low loss
- High attenuation
- Single-ended operation, 50Ω
- Ceramic Surface Mount Package (SMP)
- Hermetic
- **RoHS** compliant (2002/95/EC), **Pb-free** 



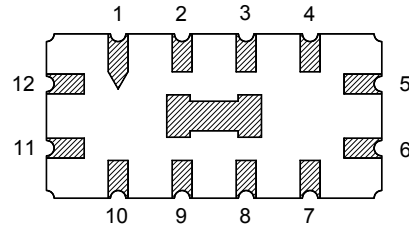
## Package

Surface Mount 13.30 x 6.50 x 1.75 mm



## Pin Configuration

Bottom View



Pin No.	Description
5	Output
11	Input
6,12	Ground
1,2,3,4	Case Ground
7,8,9,10	Case Ground

Dimensions shown are nominal in millimeters  
All tolerances are  $\pm 0.15$ mm except overall  
length and width  $\pm 0.10$ mm

Body:  $Al_2O_3$  ceramic  
Lid: Kovar, Ni plated  
Terminations: Au plating 0.5 - 1.0 $\mu$ m,  
over a 2 - 6 $\mu$ m Ni plating

**Data Sheet**

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

Operating Temperature: <sup>(2)</sup> +25 °C

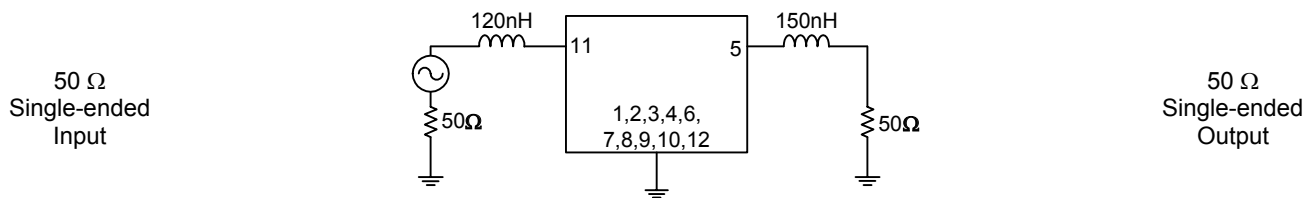
Parameter	Minimum	Typical	Maximum	Unit
Center Frequency	69.8	70	70.2	MHz
Insertion Loss at F <sub>0</sub>	-	8.5	9.5	dB
1 dB Bandwidth	6.2	6.4	-	MHz
3 dB Bandwidth	7	7.4	-	MHz
40 dB Bandwidth	-	11.55	11.95	MHz
Passband Ripple 67.2 - 72.8 MHz	-	0.65	1	dB
Phase Linearity 67.2 - 72.8 MHz	-	6	8	deg
Group Delay Variation 67.2 - 72.8 MHz	-	55	125	nsec
Absolute Delay	-	1.03	-	μsec
Temperature Coefficient	-	-94	-	ppm/°C
Source Impedance <sup>(3)</sup>	-	50	-	Ω
Load Impedance <sup>(3)</sup>	-	50	-	Ω

**Notes:**

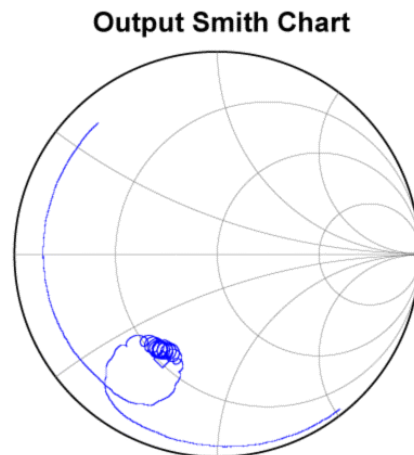
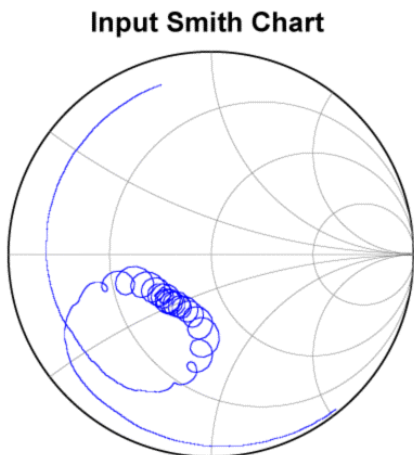
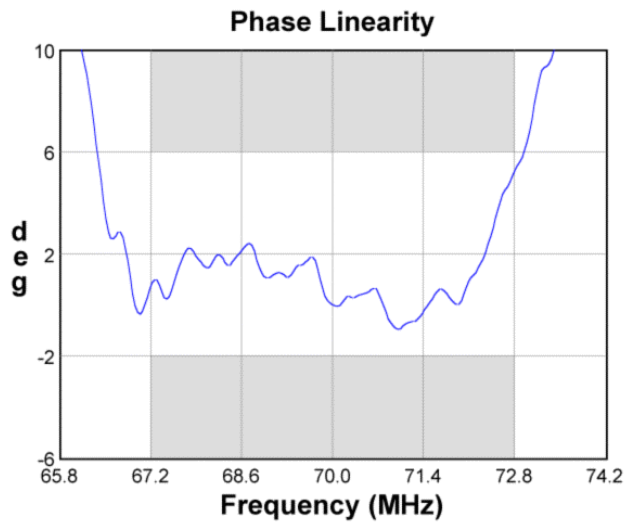
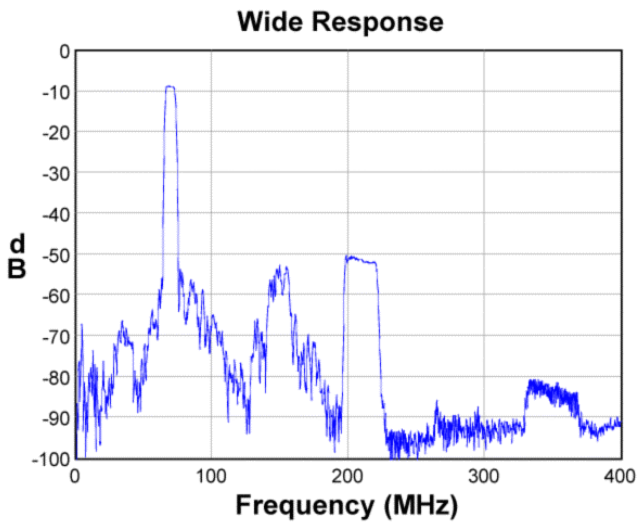
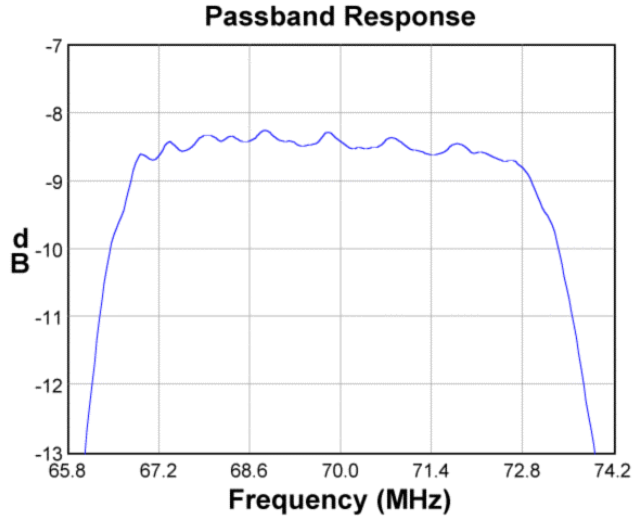
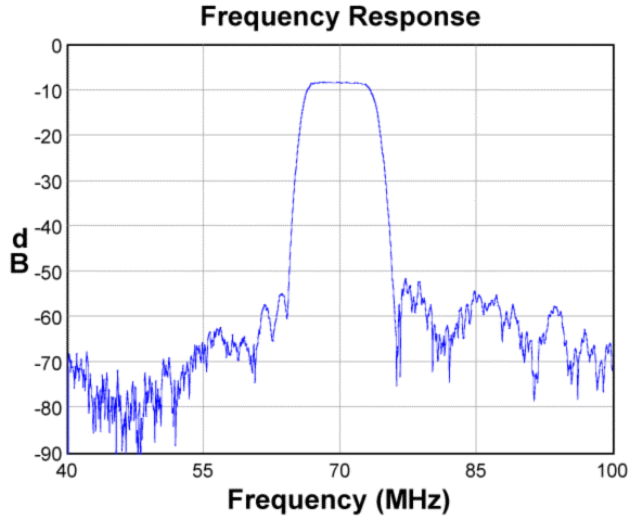
1. All specifications are based on the test circuit shown below
2. All specifications are tested at room temperature only
3. This is the optimum impedance in order to achieve the performance shown

**Test Circuit:**

Actual matching values may vary due to PCB layout and parasitics



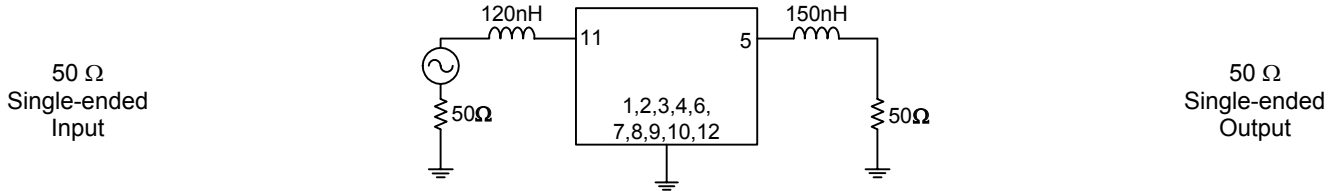
**Typical Performance (at +25°C)**



**Data Sheet**

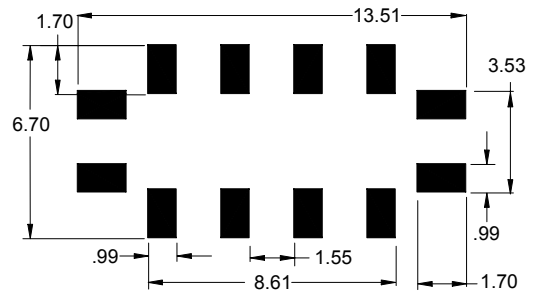
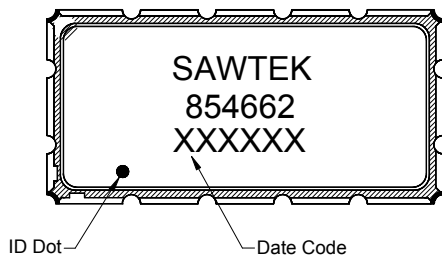
**Matching Schematics**

Actual matching values may vary due to PCB layout and parasitics



**Marking**

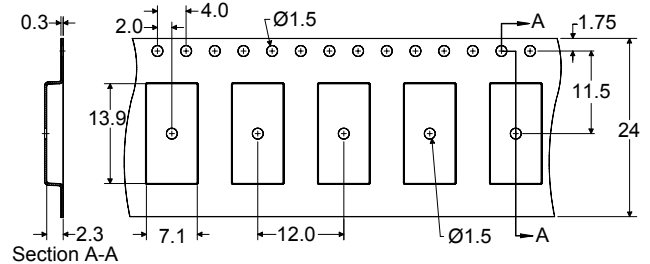
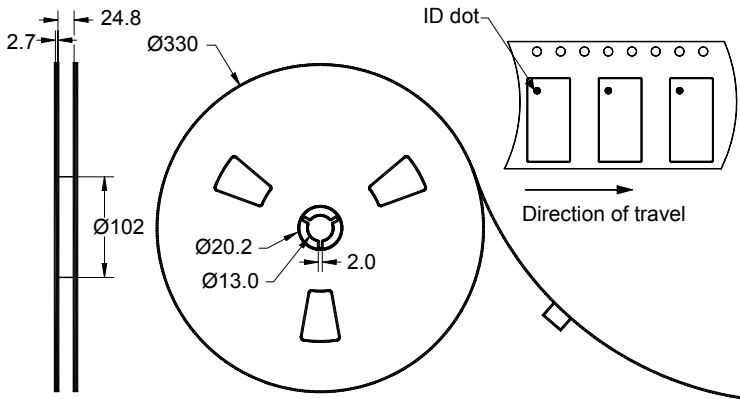
**PCB Footprint**



The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

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

**Tape and Reel**



Dimensions shown are nominal in millimeters  
Packaging quantity: 2000 units/reel


**Data Sheet**

**Maximum Ratings**


Parameter	Symbol	Minimum	Maximum	Unit
Storage Temperature Range	T <sub>stg</sub>	-40	+85	°C
ESD HBM (per JESD22-A114)	V <sub>ESD</sub>	400	-	V

**Important Notes**

**Warnings**

- Electrostatic Sensitive Device (ESD) 
- Avoid ultrasonic exposure

**RoHS Compliance**

- This product complies with EU directive 2002/95/EC (RoHS) 

**Solderability**

- Compatible with JEDEC J-STD-020C **Pb-free** process, **260°C** peak reflow temperature ([see soldering profile](#))

**Links to Additional Technical Information**

[PCB Layout Tips](#)

[Qualification Flowchart](#)

[Soldering Profile](#)

[S-Parameters](#)

[RoHS Information](#)

[Other Technical Information](#)

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