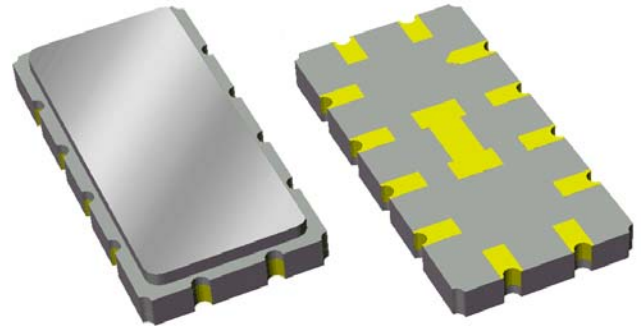


# Data Sheet

## Features

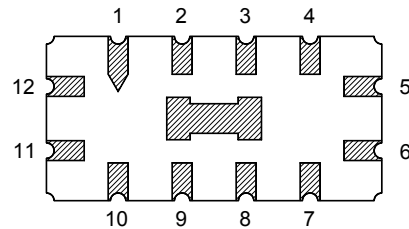
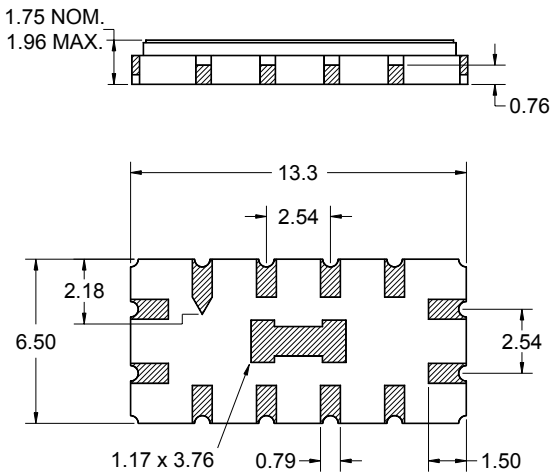
- Usable bandwidth of 4.5 MHz
- Typical 3 dB bandwidth of 4.9 MHz
- Low loss
- High attenuation
- Single-ended operation, 50Ω
- Ceramic Surface Mount Package (SMP)
- Hermetic



## Package      Pin Configuration

Surface Mount 13.30 x 6.50 x 1.75 mm

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 ±0.15mm except overall  
 length and width ±0.10mm

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

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

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

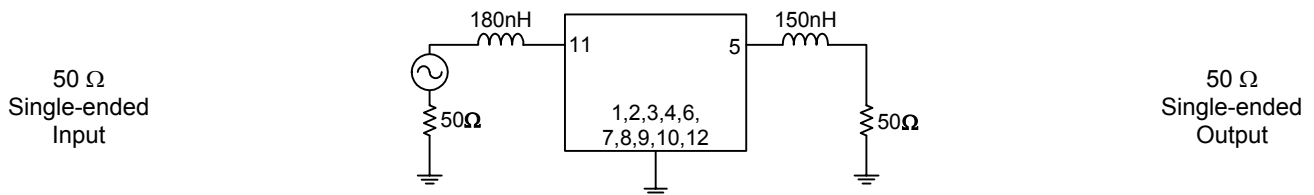
Parameter	Minimum	Typical	Maximum	Unit
Center Frequency	69.85	70	70.15	MHz
Insertion Loss at F <sub>0</sub>	-	6.8	7.5	dB
1 dB Bandwidth	3.8	4.2	-	MHz
3 dB Bandwidth	4.5	4.9	-	MHz
35 dB Bandwidth	-	8.5	9.75	MHz
Passband Ripple 68.425 - 71.575 MHz	-	0.6	1	dB
Phase Linearity 68.425 - 71.575 MHz	-	4.5	6.5	deg
Group Delay Variation 68.425 - 71.575 MHz	-	115	180	nsec
Absolute Delay	-	0.95	-	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

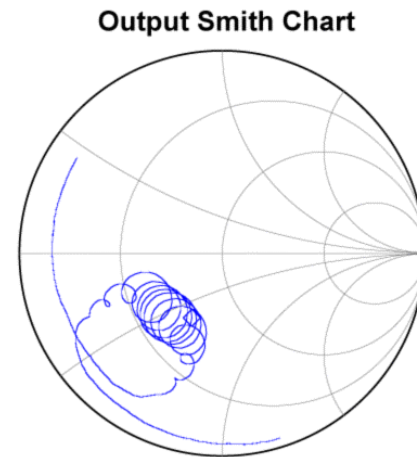
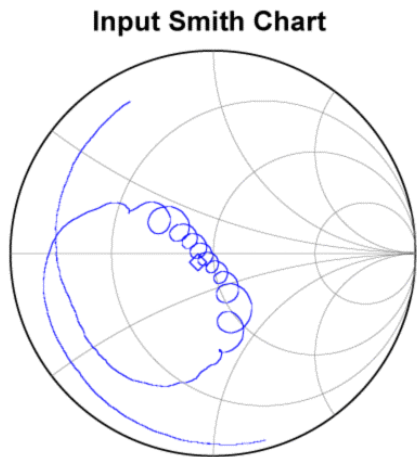
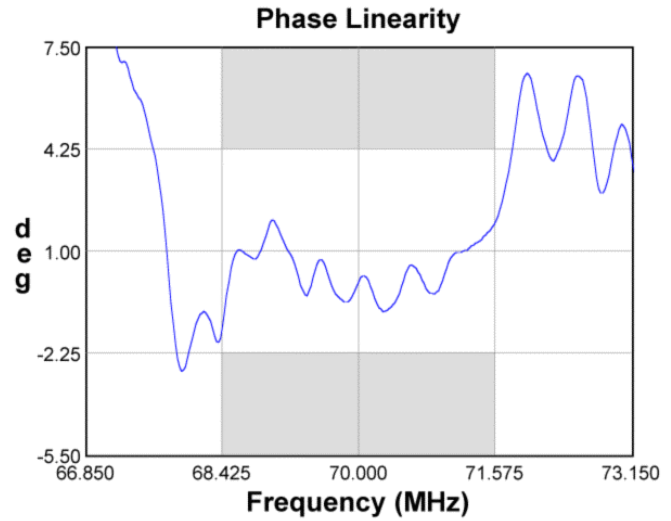
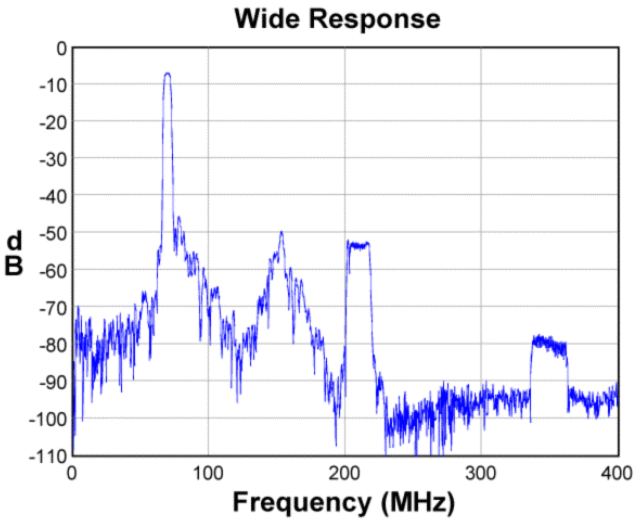
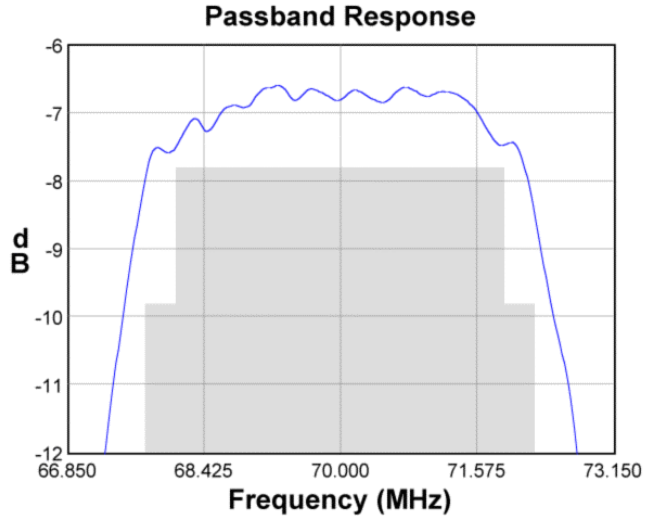
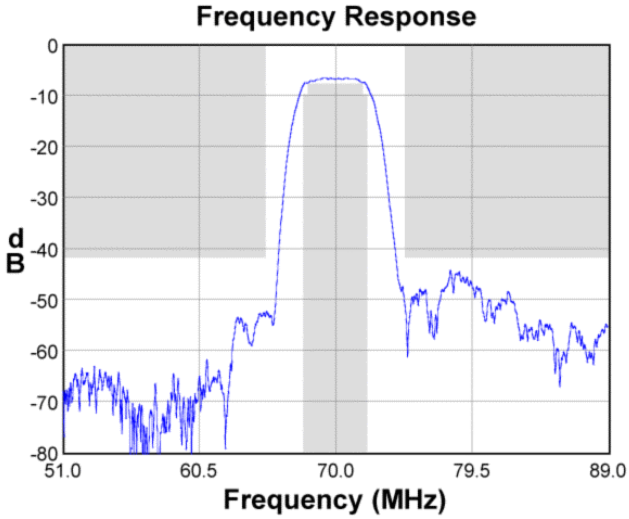
**Test Circuit:**

Actual matching values may vary due to PCB layout and parasitics



**Data Sheet**

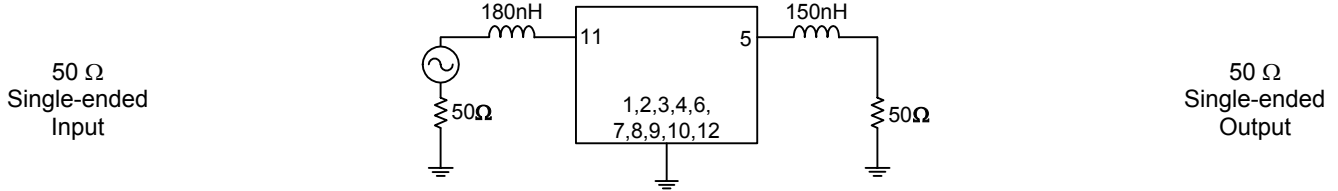
**Typical Performance (at +25°C)**



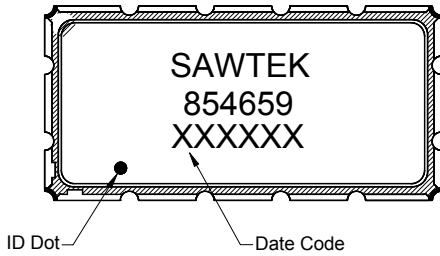
**Data Sheet**

**Matching Schematics**

Actual matching values may vary due to PCB layout and parasitics

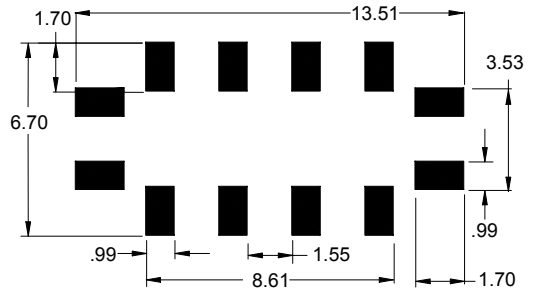


**Marking**



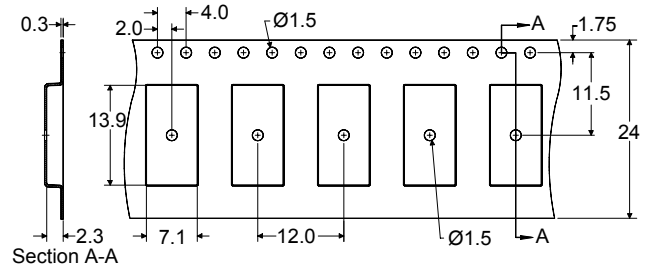
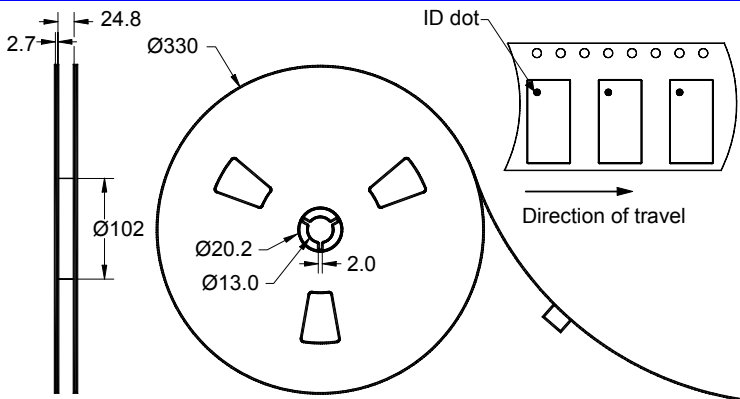
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

**PCB Footprint**



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

#### Warnings

- Electrostatic Sensitive Device (ESD) 
- Avoid ultrasonic exposure

#### Material Content

- Does not contain lead (Pb) or other RoHS restricted materials

### Links to Additional Technical Information

[PCB Layout Tips](#)[Qualification Flowchart](#)[Soldering Profile](#)[S-Parameters](#)[Other Technical Information](#)

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