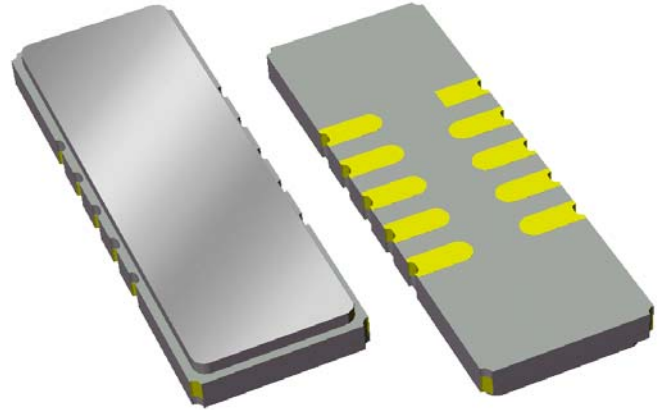


**Data Sheet**

**Features**

- Usable bandwidth of 2.0 MHz
- Typical 3 dB bandwidth of 2.1 MHz
- Low loss
- High attenuation
- Single-ended operation, 50Ω
- Ceramic Surface Mount Package (SMP)
- Hermetic

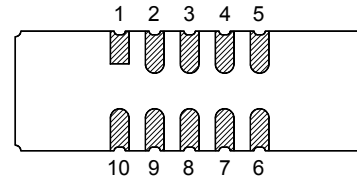
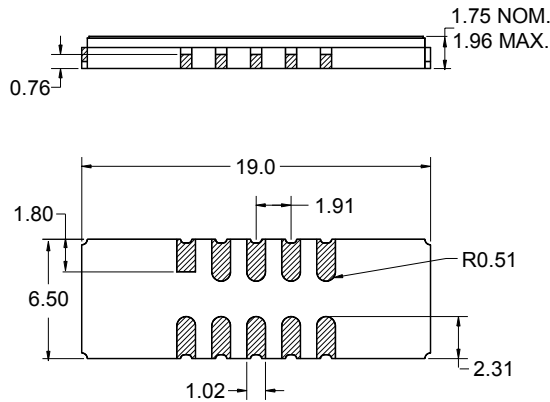


**Package**

Surface Mount 19.00 x 6.50 x 1.75 mm

**Pin Configuration**

Bottom View



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

Dimensions shown are nominal in millimeters  
All tolerances are  $\pm 0.15$ mm except overall  
length and width  $+0.15$ mm/ $-0.10$ 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 Range: <sup>(2)</sup> +25 °C

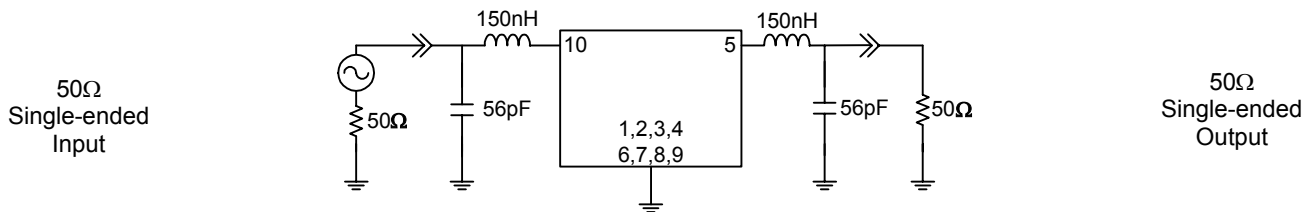
Parameter	Minimum	Typical	Maximum	Unit
Center Frequency, $f_0$	69.92	70	70.08	MHz
Insertion Loss at $f_0$	-	7.85	8.25	dB
1 dB Bandwidth	1.3	1.7	-	MHz
3 dB Bandwidth	2	2.1	-	MHz
40 dB Bandwidth	-	3.85	4.25	MHz
Passband Ripple 69.3 - 70.7 MHz	-	0.6	1	dB
Phase Linearity 69.3 - 70.7 MHz	-	5	8	deg
Group Delay Variation 69.3 - 70.7 MHz	-	250	340	nsec
Absolute Group Delay	-	2.19	-	$\mu$ sec
Temperature Coefficient	-	-23	-	ppm/°C
Source Impedance <sup>(3)</sup>	-	50	-	$\Omega$
Load Impedance <sup>(3)</sup>	-	50	-	$\Omega$

**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

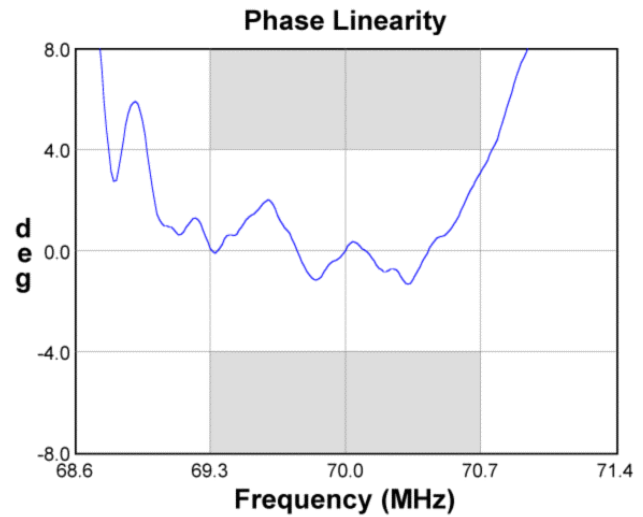
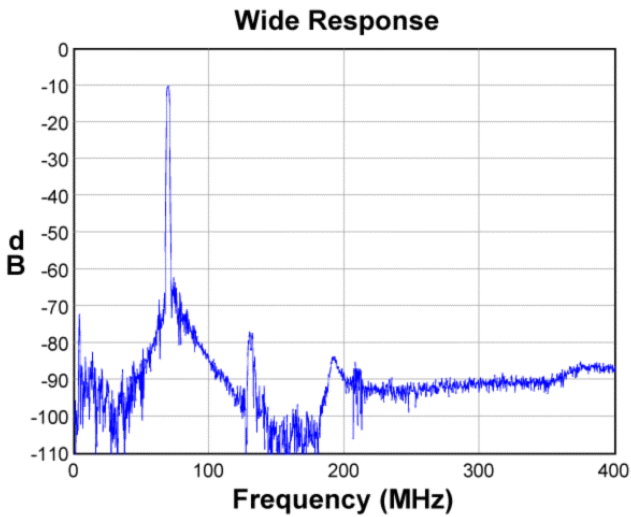
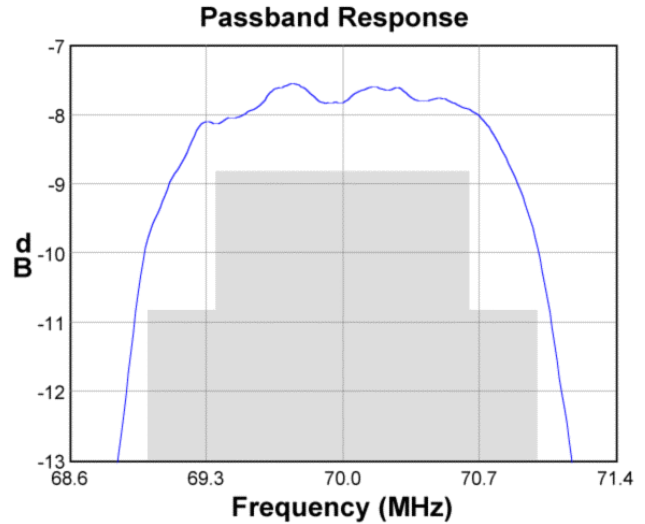
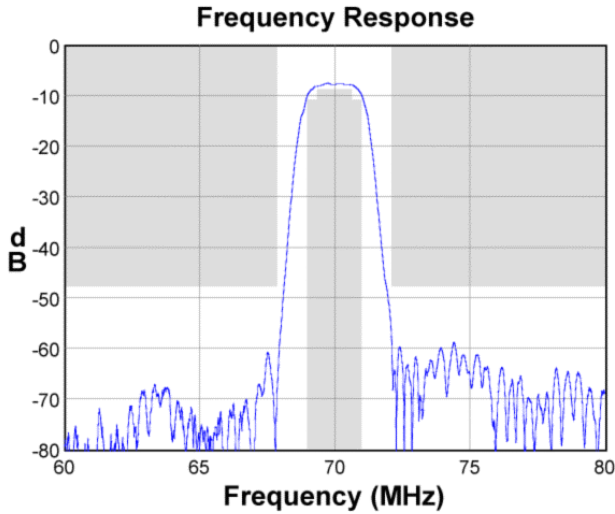
**Test Circuit:**

Actual matching values may vary due to PCB layout and parasitics

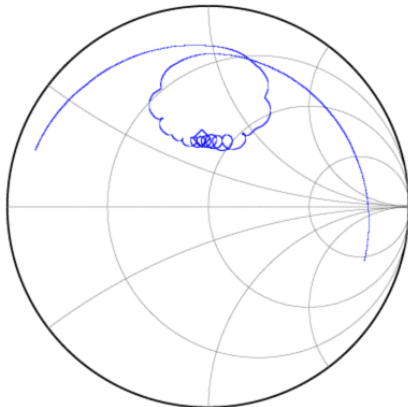


**Data Sheet**

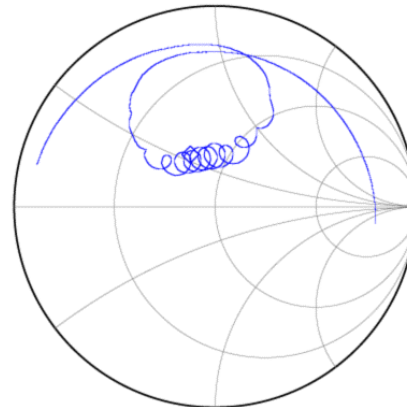
**Typical Performance (at +25°C)**



**Input Smith Chart**



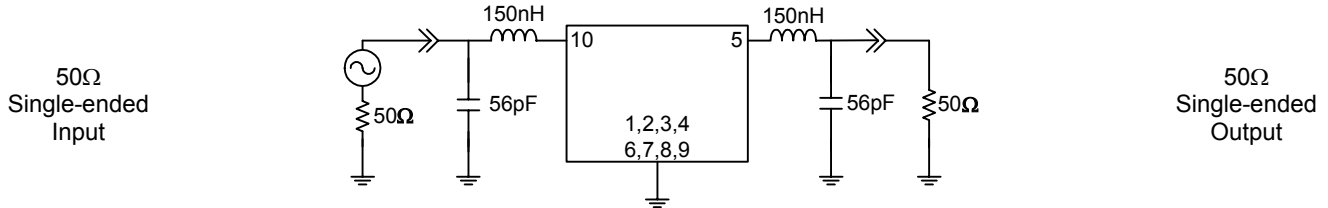
**Output Smith Chart**



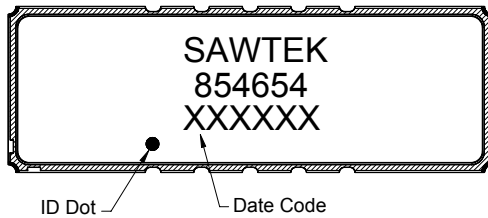
**Data Sheet**

**Matching Schematics**

Actual matching values may vary due to PCB layout and parasitics

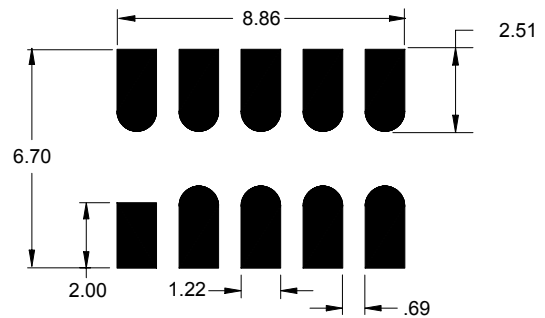


**Marking**



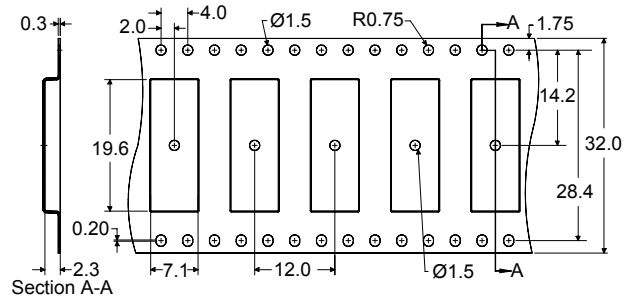
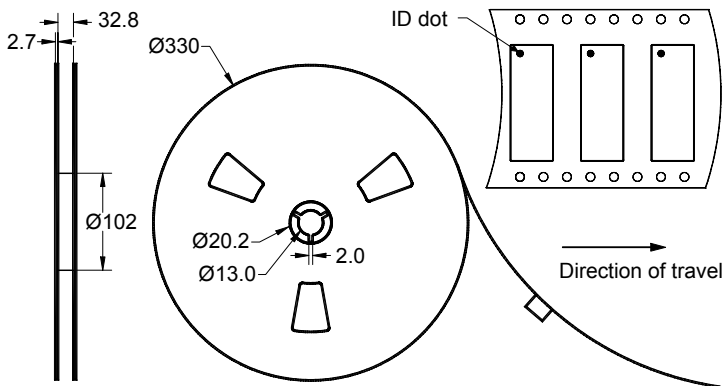
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

**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](#)

Sawtek's liability is limited only to the Surface Acoustic Wave (SAW) 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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