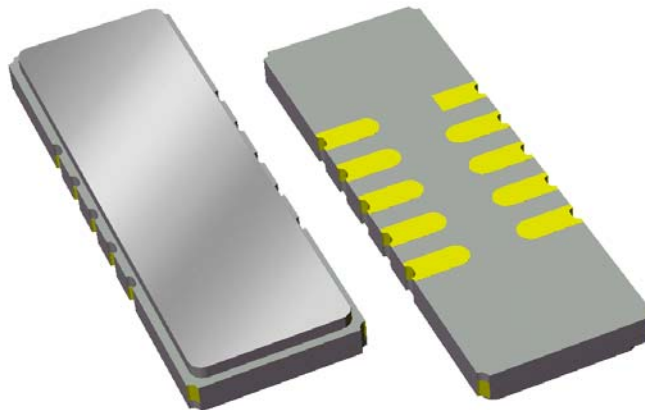


Data Sheet

Features

- Usable bandwidth of 0.5 MHz
- Typical 3 dB bandwidth of 0.55 MHz
- Low loss
- High attenuation
- Single-ended operation, 50Ω
- Ceramic Surface Mount Package (SMP)
- Hermetic

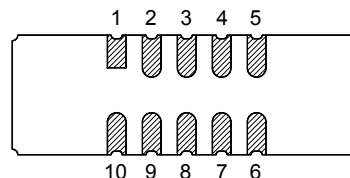
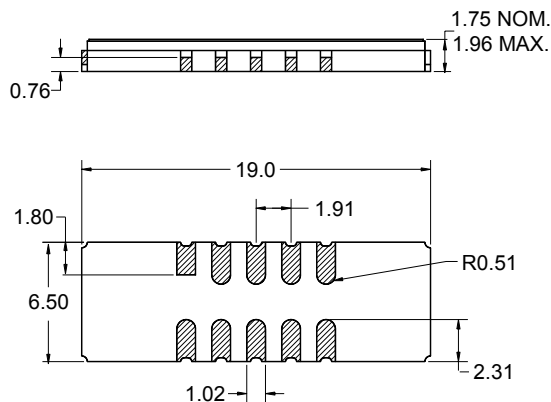


Package

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 $\pm 0.15\text{mm}$ except overall
length and width $+0.15\text{mm}/-0.10\text{mm}$

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 ⁽¹⁾

Operating Temperature Range: ⁽²⁾ +25 °C

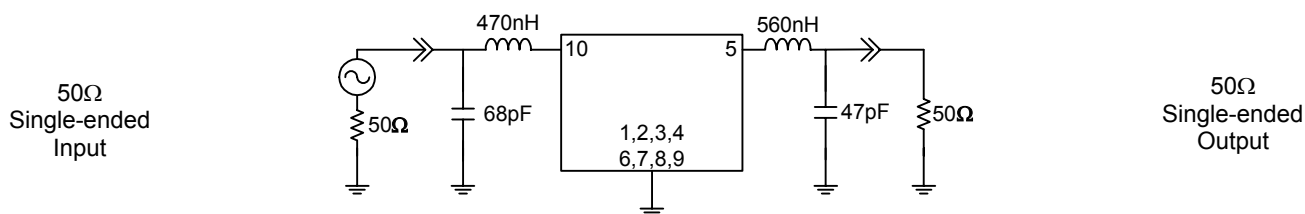
Parameter	Minimum	Typical	Maximum	Unit
Center Frequency, f_0	69.95	70	70.05	MHz
Insertion Loss at f_0		7.6	8	dB
1 dB Bandwidth	0.35	0.37	-	MHz
3 dB Bandwidth	0.5	0.55	-	MHz
35 dB Bandwidth	-	1.28	1.4	MHz
Passband Ripple 69.85 - 70.15 MHz	-	0.7	1	dB
Phase Linearity 69.85 - 70.15 MHz	-	5.2	6.75	deg
Group Delay Variation 69.85 - 70.15 MHz	-	330	500	nsec
Absolute Group Delay	-	2	-	μsec
Temperature Coefficient	-	$\Delta F/F = -[(T-T_0)/5.4]^2$	-	ppm
Source Impedance ⁽³⁾	-	50	-	Ω
Load Impedance ⁽³⁾	-	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

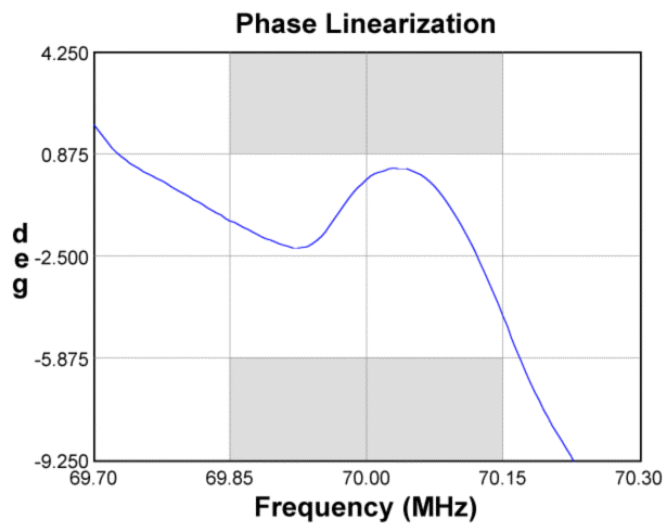
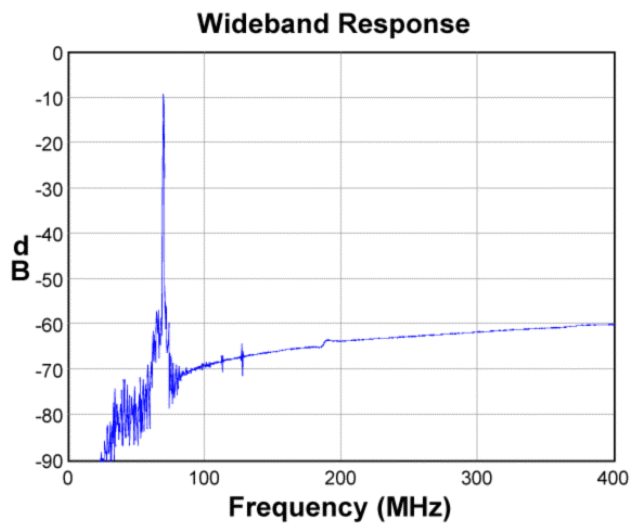
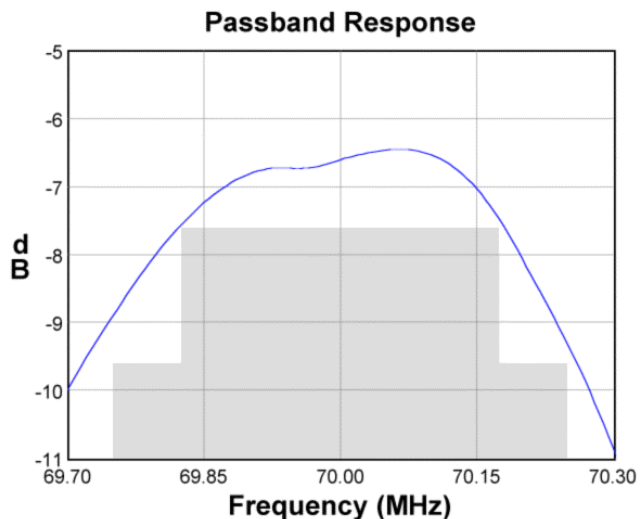
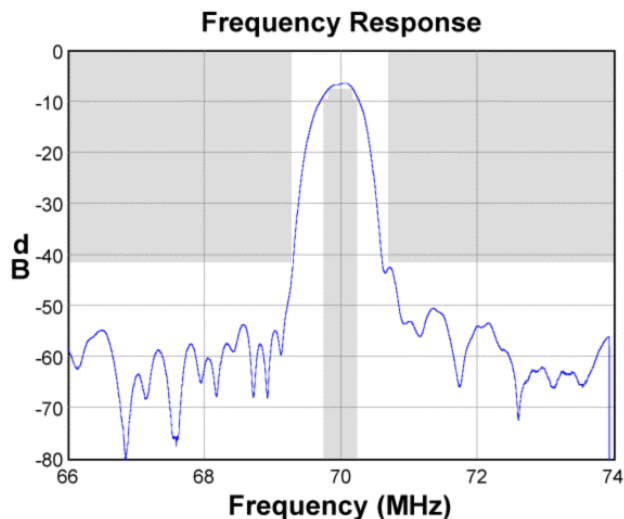
Test Circuit:

Actual matching values may vary due to PCB layout and parasitics

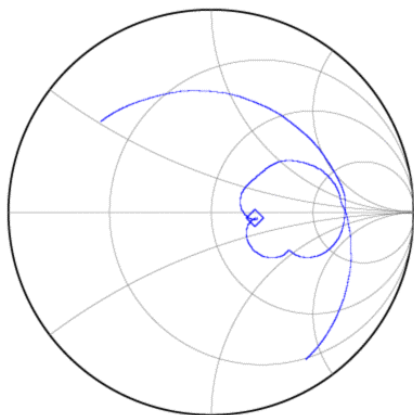


Data Sheet

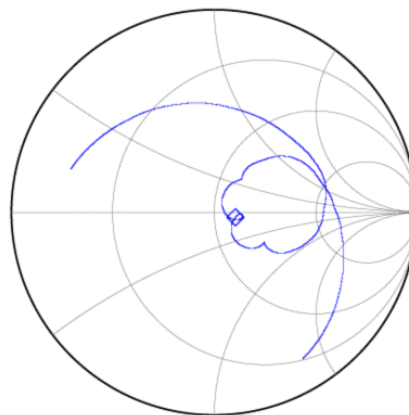
Typical Performance (at +25°C)



Input Smith Chart



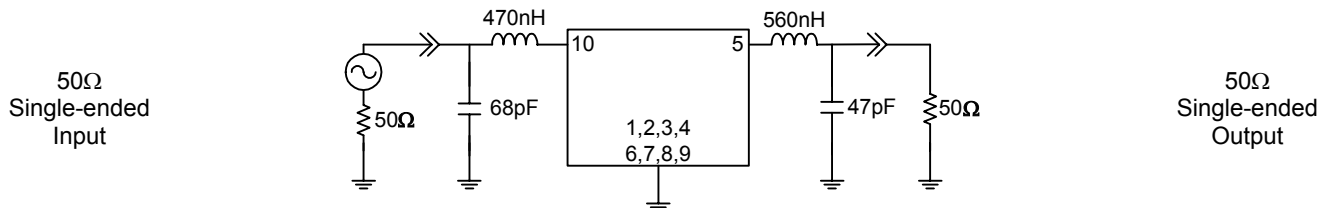
Output Smith Chart



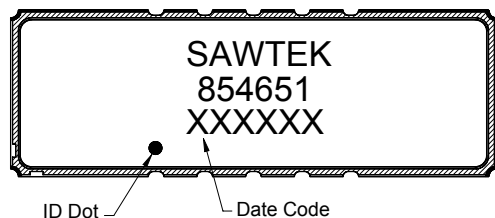
Data Sheet

Matching Schematics

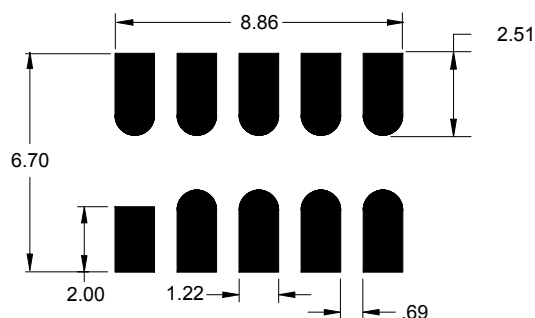
Actual matching values may vary due to PCB layout and parasitics



Marking



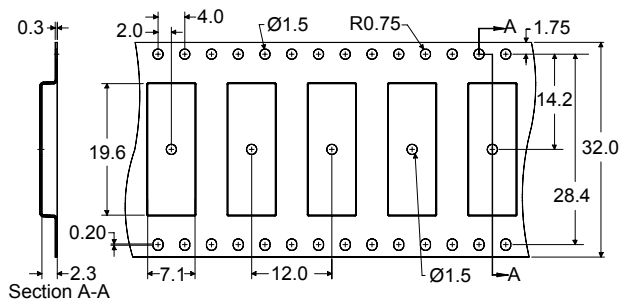
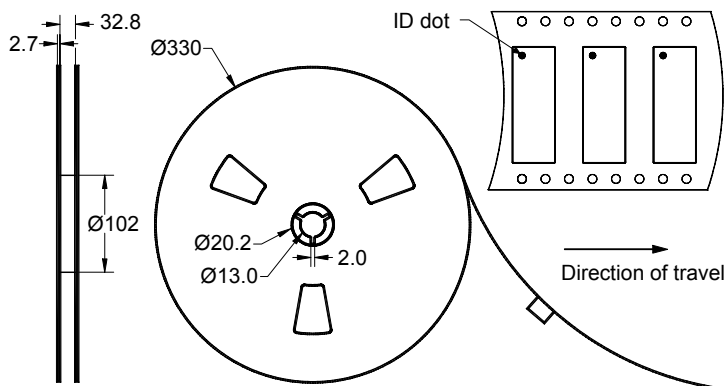
PCB Footprint



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 _{stg}	-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.

Contact Information



PO Box 609501
Orlando, FL 32860-9501
USA

Phone: +1 (407) 886-8860
Fax: +1 (407) 886-7061
Email: custservice@sawtek.com
Web: www.sawtek.com

Or contact one of our worldwide
Network of [sales offices](#),
[Representatives or distributors](#)