
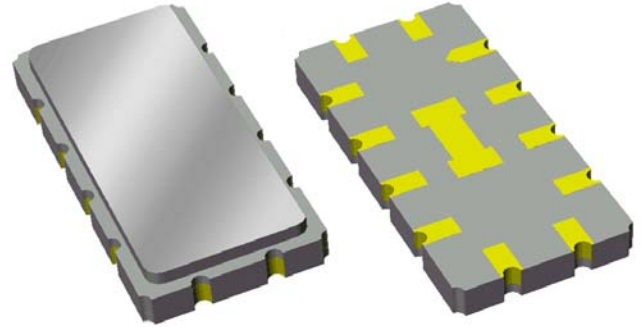


Data Sheet

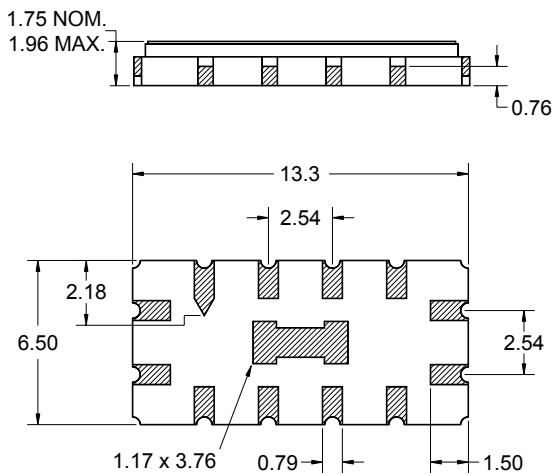
Features

- Usable bandwidth of 32 MHz
- Typical 3 dB bandwidth of 33.4 MHz
- Low loss
- High attenuation
- Single-ended operation, 50Ω
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free 



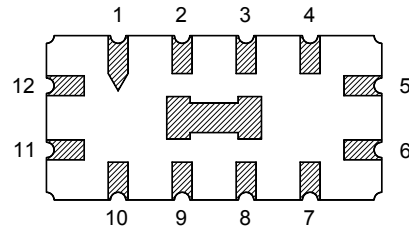
Package

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 ± 0.15 mm except overall
length and width ± 0.10 mm

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

Data Sheet

Electrical Specifications ⁽¹⁾

Operating Temperature: ⁽²⁾ +25 °C

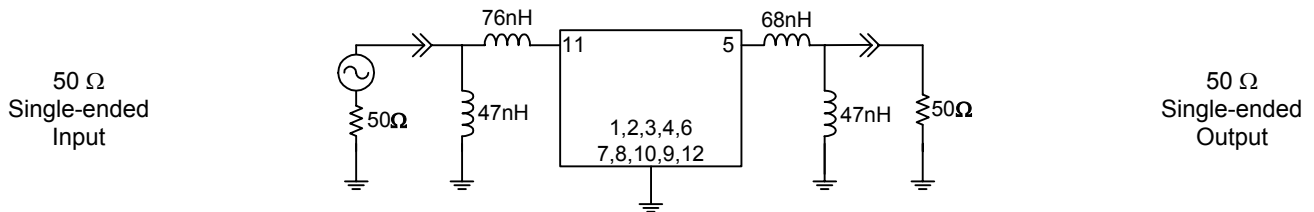
Parameter	Minimum	Typical	Maximum	Unit
Center Frequency	-	140	-	MHz
Insertion Loss at F ₀	-	11.5	13	dB
1 dB Bandwidth	30	32	-	MHz
3 dB Bandwidth	32	33.4	-	MHz
35 dB Bandwidth	-	38	44	MHz
Passband Ripple 127.2 - 152.8 MHz	-	0.55	1.2	dB
Phase Linearity 127.2 - 152.8 MHz	-	6.1	14	deg
Group Delay Variation 127.2 - 152.8 MHz	-	45	120	nsec
Absolute Delay	-	0.75	-	µsec
Temperature Coefficient	-	-94	-	ppm/°C
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:

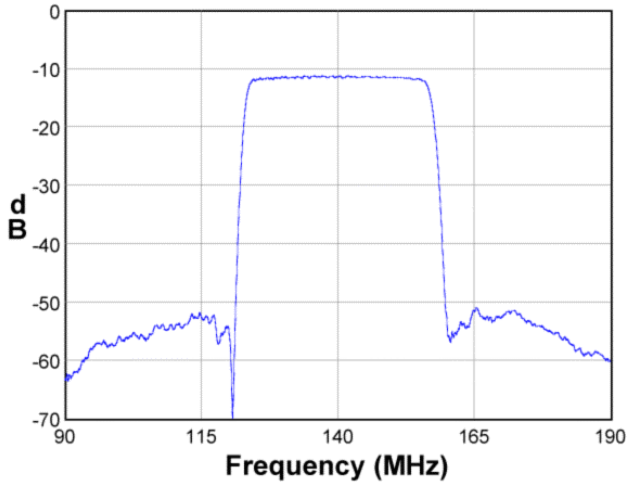
Actual matching values may vary due to PCB layout and parasitics



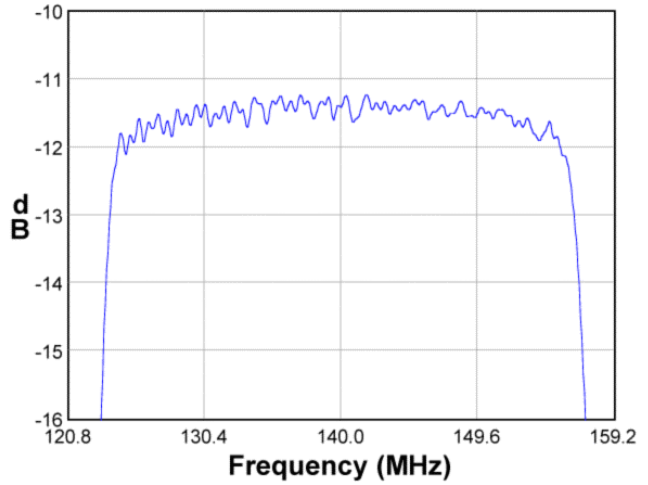
Data Sheet

Typical Performance (at +25°C)

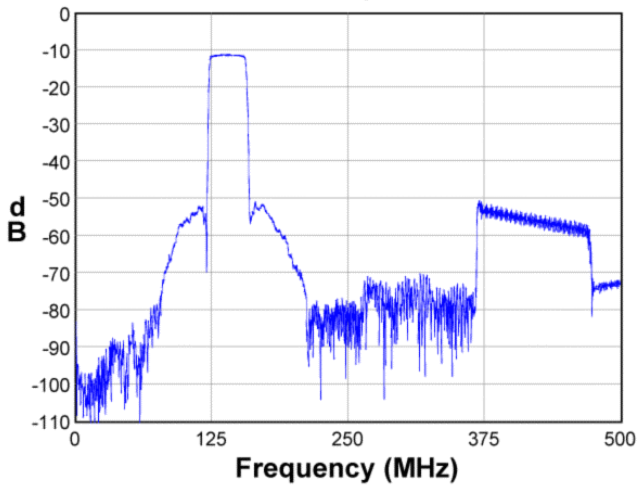
Frequency Response



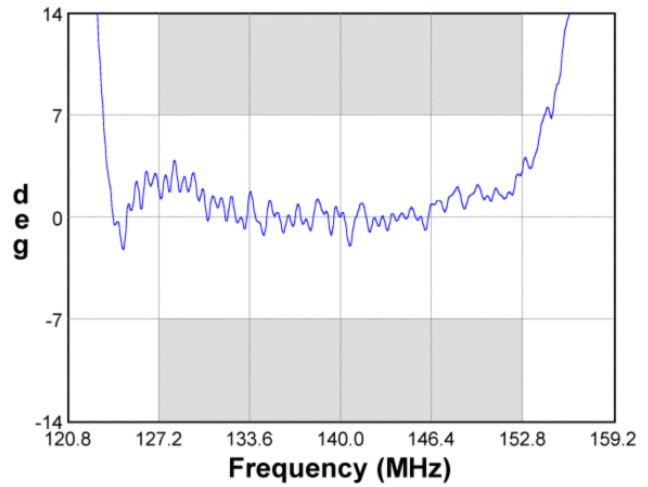
Passband Response



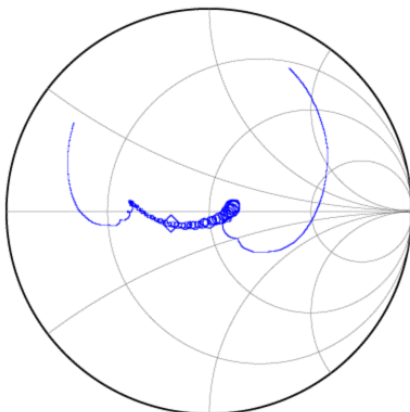
Wide Response



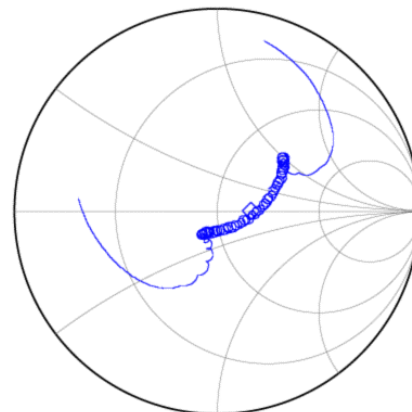
Phase Linearity



Input Smith Chart



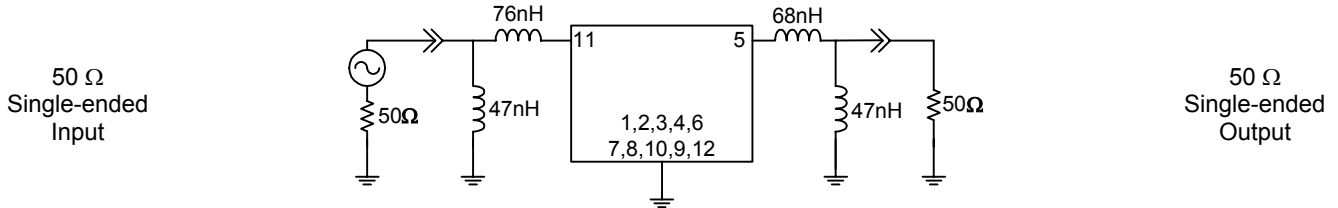
Output Smith Chart



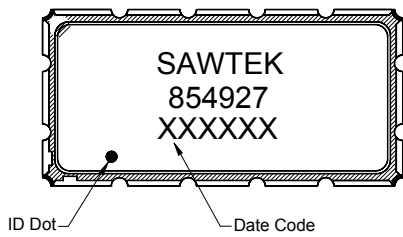
Data Sheet

Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

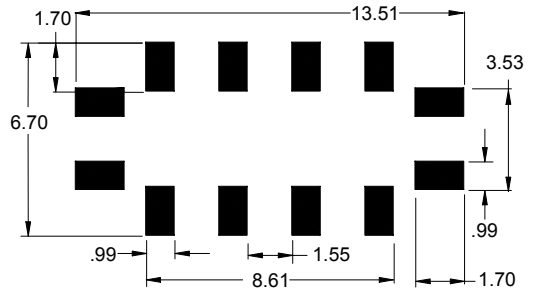


Marking



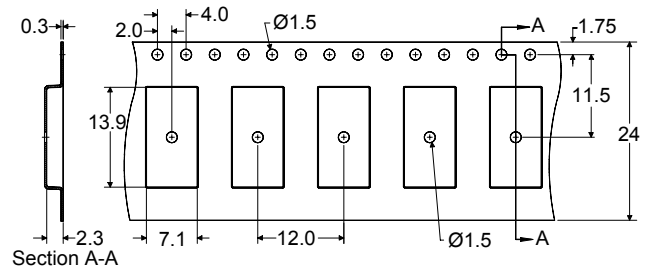
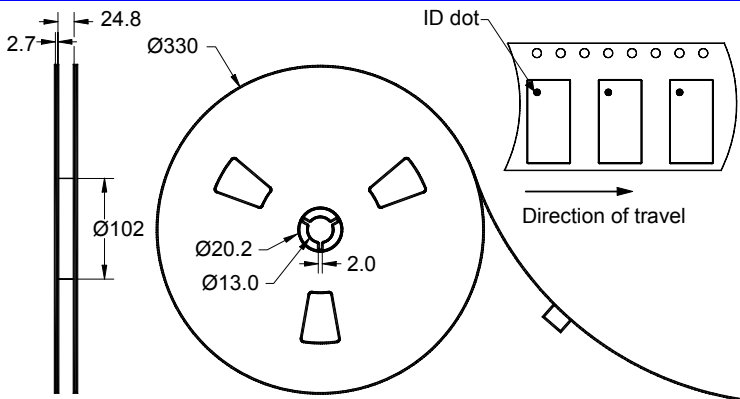
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

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 _{stg}	-40	+85	° C

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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