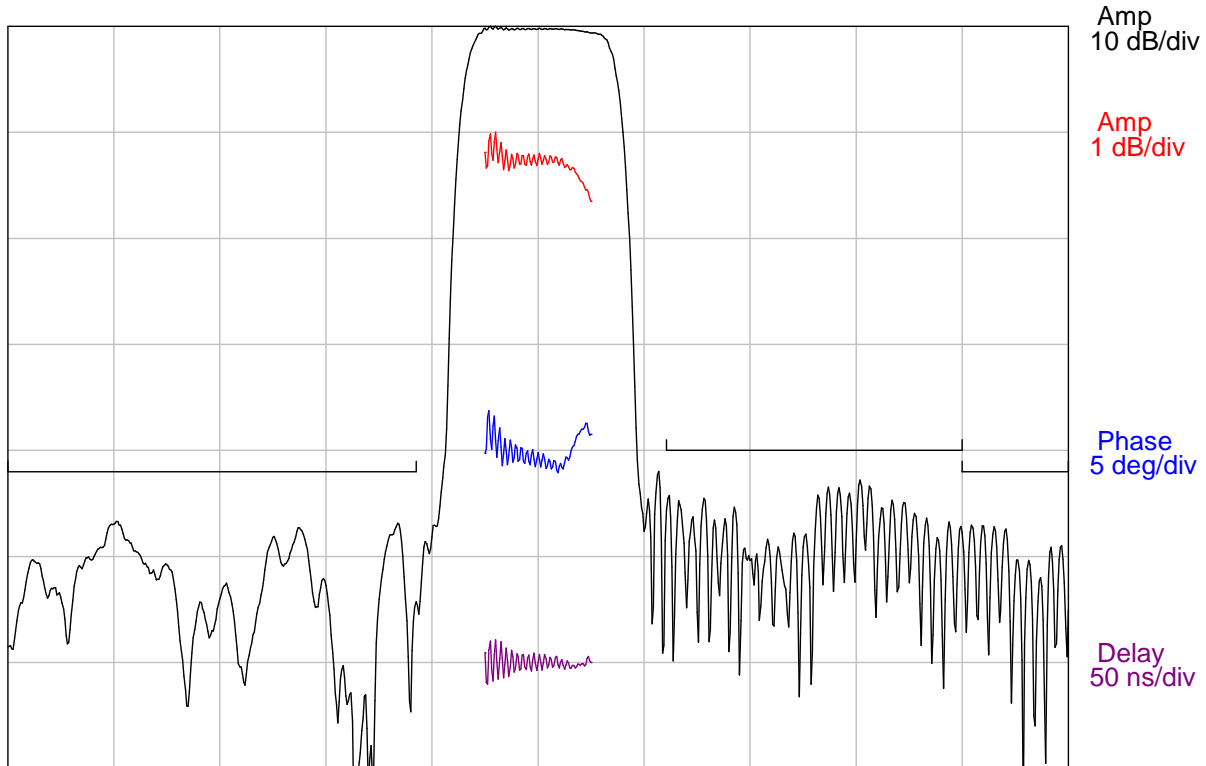


**DESCRIPTION**

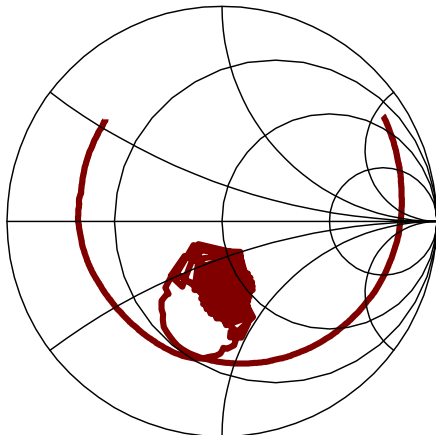
- 326.4 MHz SAW bandpass filter with 20 MHz bandwidth.
- 7 x 5 mm ceramic LCC package.
- RoHS compliant.

**TYPICAL PERFORMANCE**

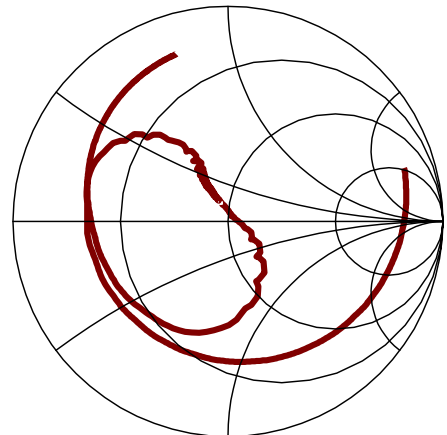


Center = 326.4 MHz, 20 MHz/div (250 kHz incr)

**S11 (226.4-426.4 MHz)**



**S22 (226.4-426.4 MHz)**



## SPECIFICATION

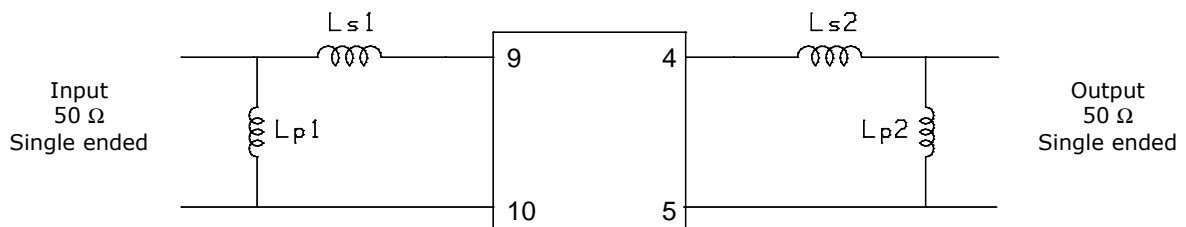
Parameter	Min	Typ	Max	Units
Center Frequency, $F_c$ <sup>1</sup>	-	326.4	-	MHz
Minimum Insertion Loss	-	9.2	11.5	dB
Passband Ripple (321.4-331.4 MHz)	-	0.6	1	dB p-p
Group Delay Deviation (321.4-331.4 MHz)	-	25	60	ns p-p
Absolute Delay	-	480	750	ns
1 dB bandwidth <sup>2</sup>	20	23.8	-	MHz
Lower 1 dB Frequency	-	314.9	316.4	MHz
Upper 1 dB Frequency	336.4	338.7	-	MHz
40 dB Bandwidth	-	36.2	39	MHz
Relative Attenuation (10 to 303.4 MHz) <sup>2</sup>	42	47	-	dB
Relative Attenuation (350.4 to 406.4 MHz)	40	42	-	dB
Relative Attenuation (406.4 to 500 MHz) <sup>2</sup>	42	47	-	dB
Input IP3 <sup>3</sup>	37	-	-	dBc
Source and Load Impedance	50			ohms
Temperature Coefficient of Frequency	-86			ppm/°
Ambient Temperature	-	25	-	°C

- Notes:
1. Reference frequency. Computed as mean of the 3 dB frequencies.
  2. All dB values are referenced to the insertion loss value.
  3. Measured inside filter passband.

## MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	°C
Operating Temperature Range	-20	85	°C
Input Power Level	-	10	dBm

## MATCHING CIRCUIT

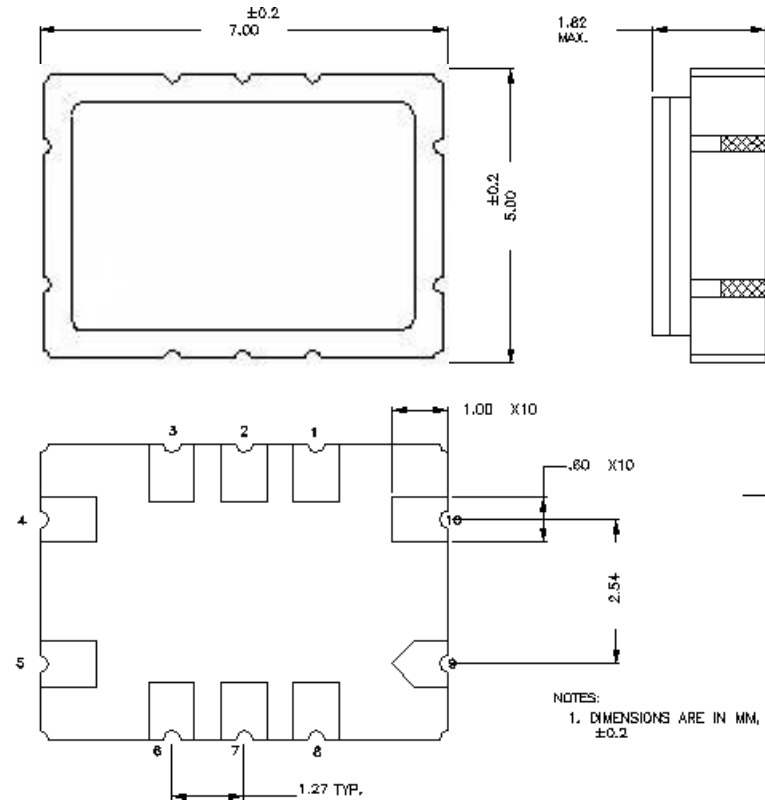


$$L_{s1} = 5 \text{ nH}, \quad L_{p1} = 24 \text{ nH}, \quad L_{s2} = 7 \text{ nH}, \quad L_{p2} = 24 \text{ nH}$$

Notes:

- Recommend 2% or better tolerance matching components. Typical inductor  $Q=40$ .
- Optimum values may change depending on board layout. Values shown are intended as a guide only.

**PACKAGE OUTLINE**



**Units:** mm

Tolerances are typically  $\pm 0.2$  mm except where indicated.

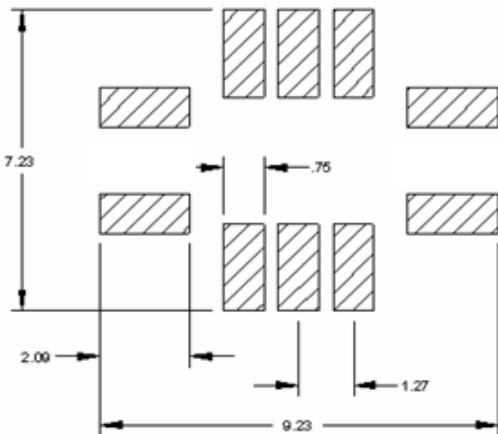
**Pad Configuration:**

- Input: 9
- Input return: 10
- Output: 4
- Output return: 5
- Ground: All other pads

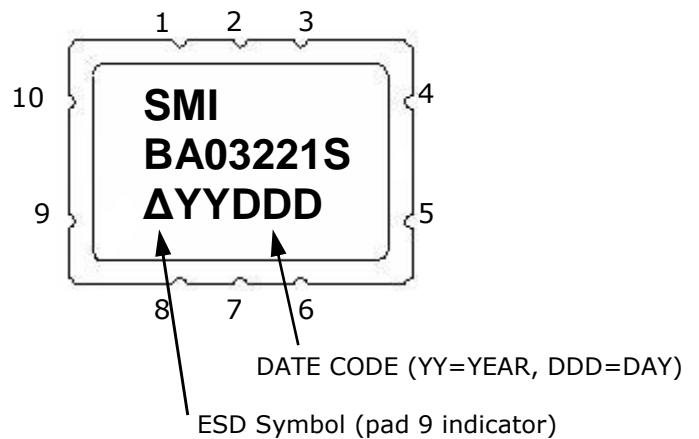
Package Material:  
 Body:  $Al_2O_3$  ceramic  
 Lid: Kovar, Ni plated  
 Terminations: Au plating 1  $\mu$ m min, over a 1.3-8.9  $\mu$ m Ni plating

NOTES:  
 1. DIMENSIONS ARE IN MM,  
 $\pm 0.2$

**SUGGESTED FOOTPRINT**



**MARKING**



**ISO 9001**  
**Registered**

All specifications are believed to be accurate and reliable. However, Spectrum Microwave reserves the right to make changes without notice.  
 © 2010 All rights reserved.