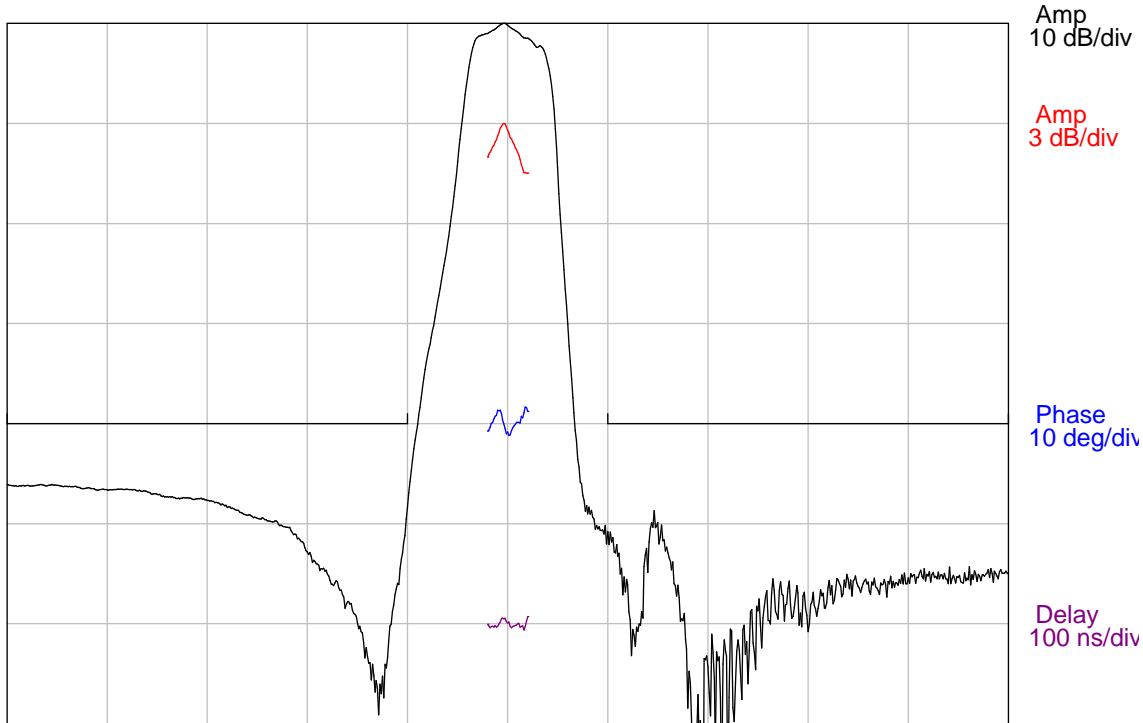


**DESCRIPTION**

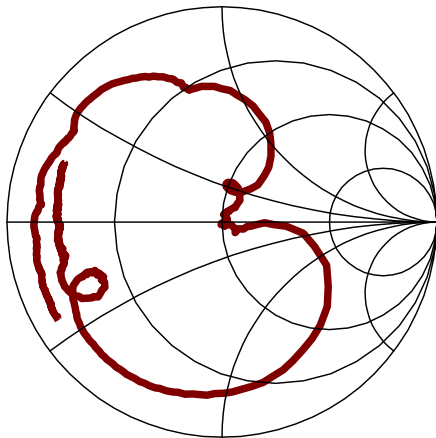
- 720 MHz SAW bandpass filter with minimum 3 dB bandwidth of 10 MHz.
- 5 x 5 mm ceramic LCC package, 8 pads.
- RoHS compliant.

**TYPICAL PERFORMANCE**

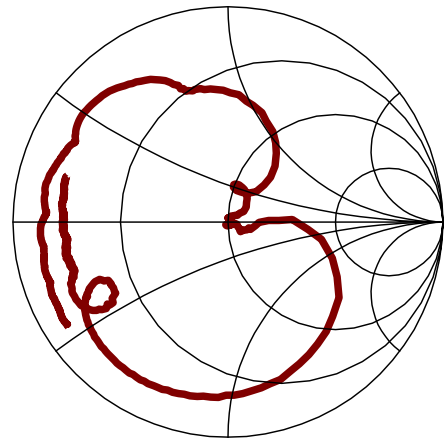


Center = 720 MHz, 20 MHz/div (250 kHz incr)

**S11 (620-820 MHz)**



**S22 (620-820 MHz)**



## SPECIFICATION

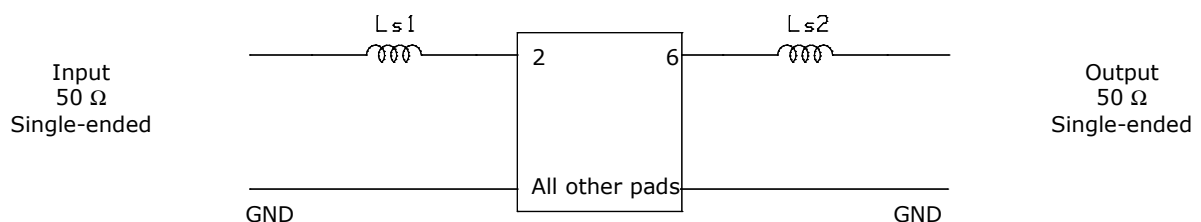
Parameter	Min	Typ	Max	Units
Center Frequency, $F_c$ <sup>1</sup>	-	720	-	MHz
Minimum Insertion Loss	-	2.9	4	dB
Absolute Delay	-	0.06	0.1	us
1 dB Bandwidth <sup>2</sup>	-	6.3	-	MHz
3 dB Bandwidth <sup>2</sup>	10	14.7	-	MHz
Lower 3 dB Frequency <sup>2</sup>	-	712.7	715	MHz
Upper 3 dB Frequency <sup>2</sup>	725	727.4	-	MHz
20 dB Bandwidth <sup>2</sup>	-	22.1	24	MHz
Amplitude Ripple ( $F_c \pm 4$ MHz)	-	1.5	3	dB p-p
Phase Deviation ( $F_c \pm 4$ MHz)	-	3	10	deg p-p
Group Delay Ripple ( $F_c \pm 4$ MHz)	-	15	30	ns p-p
Rejection (500-700 MHz) <sup>2</sup>	40	45	-	dB
Rejection (740-950 MHz) <sup>2</sup>	40	48	-	dB
Input Return Loss ( $F_c \pm 4$ MHz)	10	14	-	dB
Output Return Loss ( $F_c \pm 4$ MHz)	10	14	-	dB
Temperature Coefficient of frequency	-	-35	-	ppm/°C
Source/Load Impedance	50			ohms
Ambient Temperature	25			°C

- Notes: 1. Defined as the average of the lower and upper 3 dB frequencies at room ambient.  
2. All dB levels are defined relative to the insertion loss.

## MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	°C
Operating Temperature Range	-40	85	°C
Input Power Level	-	+13	dBm

## MATCHING CIRCUIT

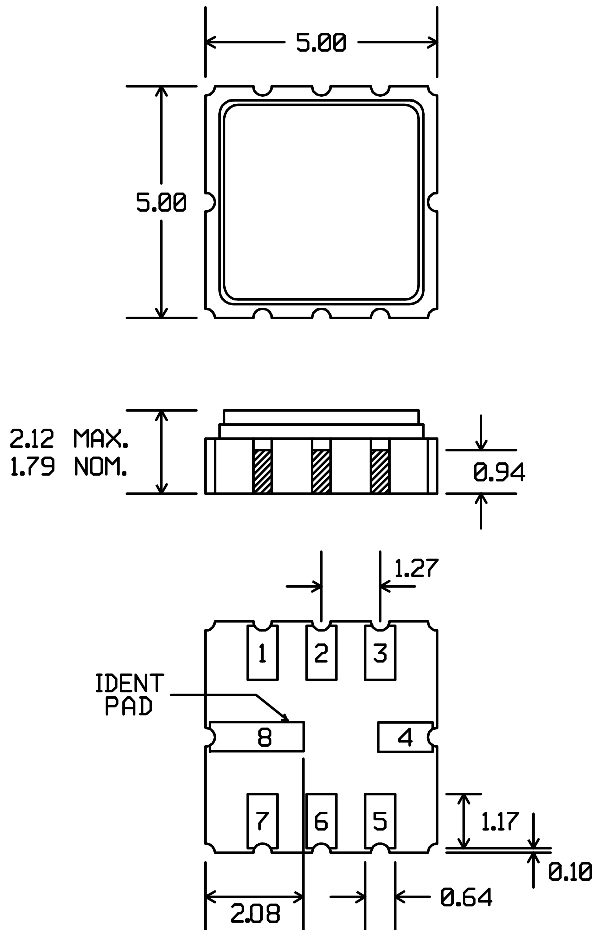


$$L_{s1} = 8.2 \text{ nH}, L_{s2} = 8.2 \text{ nH}$$

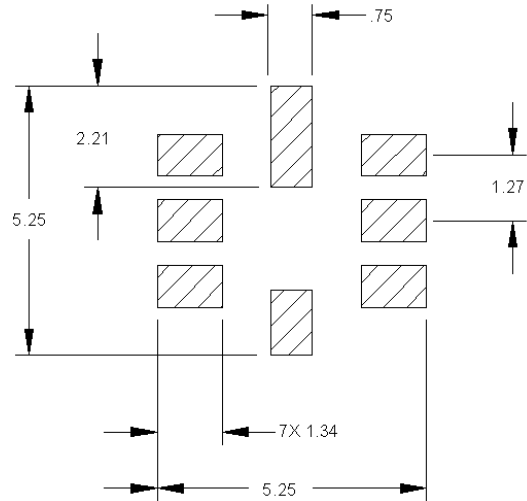
Notes:

- Recommend  $\pm 2\%$  matching tolerances. Typical inductor  $Q=40$ .
- Values shown are for reference only and may change depending on board layout.

**PACKAGE OUTLINE**



**SUGGESTED FOOTPRINT**



**Units:** mm

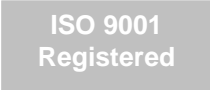
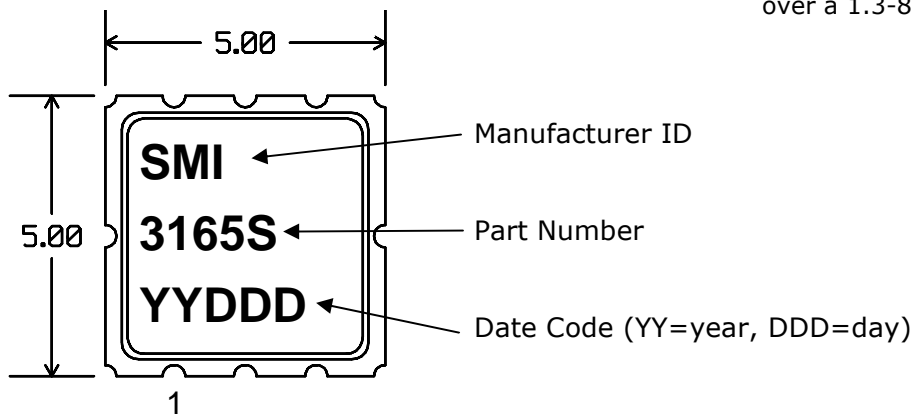
Tolerances are  $\pm 0.15$  mm except where indicated.

**Pad Configuration:**

Input: 2  
Output: 6  
To be grounded: 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

**MARKING**



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