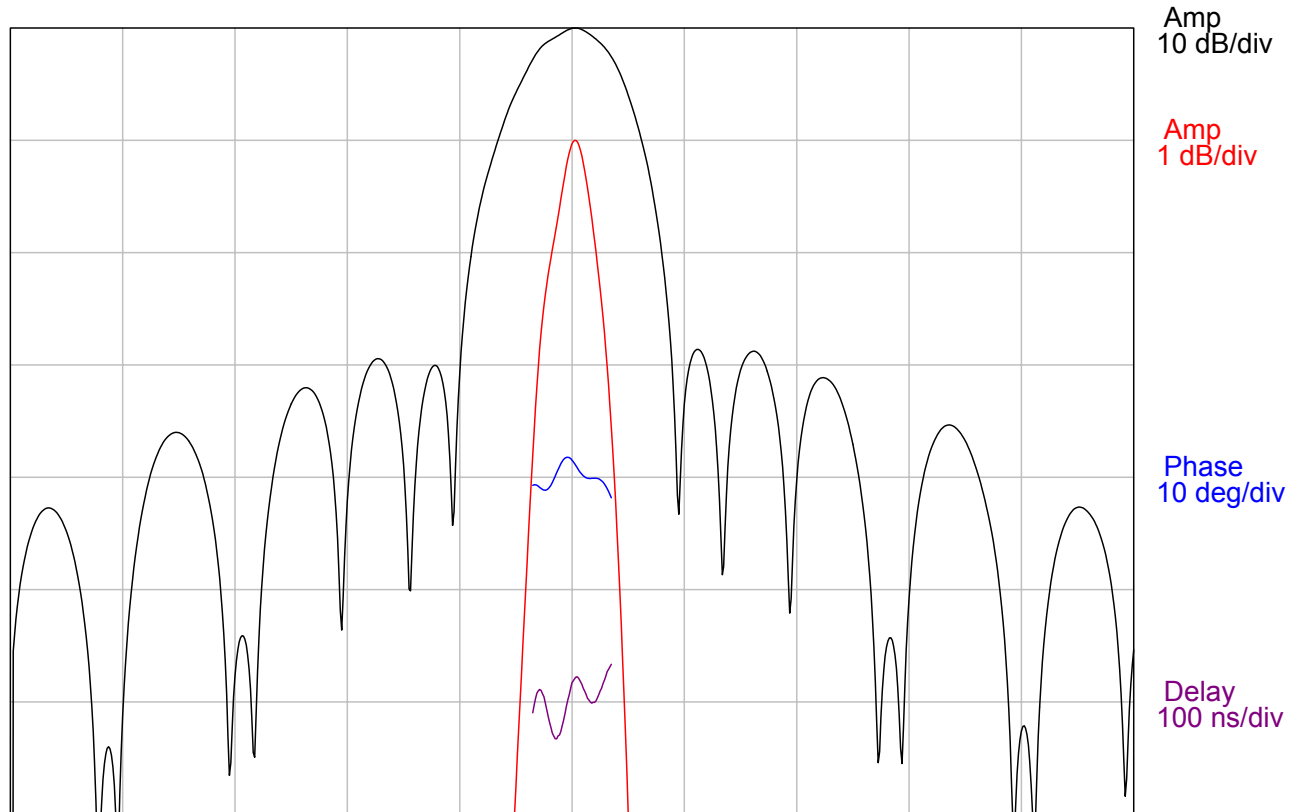


**DESCRIPTION**

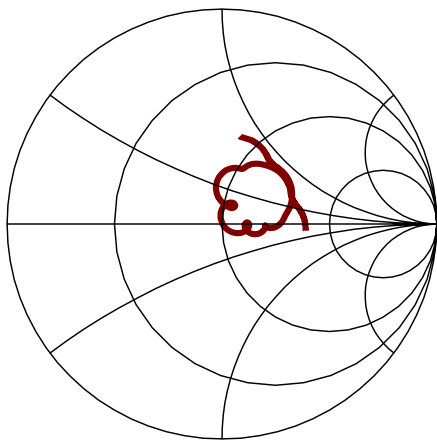
- 696.42 MHz SAW delay line with 1.4 MHz bandwidth.
- 5 x 7 mm ceramic LCC.
- RoHS compliant.

**TYPICAL PERFORMANCE**

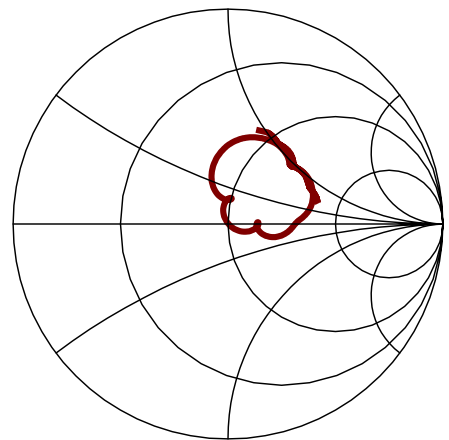


Center = 696.42 MHz, 2 MHz/div (25 kHz incr)

**S11 (686.42-706.42 MHz)**



**S22 (686.42-706.42 MHz)**



## SPECIFICATION

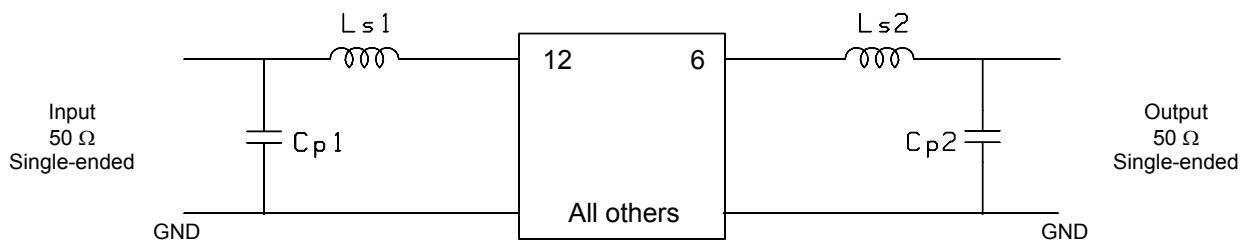
Parameter	Min	Typ	Max	Units
Center Frequency (Fc, at 10dB points) <sup>2,3</sup>	696.35	696.42	696.49	MHz
Insertion Loss	-	6.9	9	dB
3 dB Bandwidth	1.4	1.51	-	MHz
10 dB Bandwidth	-	2.71	-	MHz
Phase Linearity <sup>2</sup>	-	2.5	10	deg p-p
Phase Slope (in 3 dB BW)	-	-0.16	-	deg/kHz
Insertion Phase <sup>1,2</sup>	-	0	-	deg
Device Delay	-	570	-	ns
Turn Over Temperature (Tc)	-	46	-	° C
Source and Load Impedance	-	50	-	Ω
Ambient Temperature	-	23	-	° C

- Notes:
1. Measured at 696.42 MHz in a tuned reference test fixture.
  2. Specifications apply at an ambient temperature of 23C +/- 5C.
  3. Frequency versus temperature will be according to the following:  $dF_c/F_c = -0.032 \text{ ppm} * (T-T_c)^2$  where  $(dF_c/F_c)$  = Change in center frequency (in ppm) and T = temperature (in degrees C).  
Tc = the turnover temperature.

## MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	125	°C
Operating Temperature Range	-30	100	°C
Input Power Level	-	+13	dBm

## MATCHING CIRCUIT



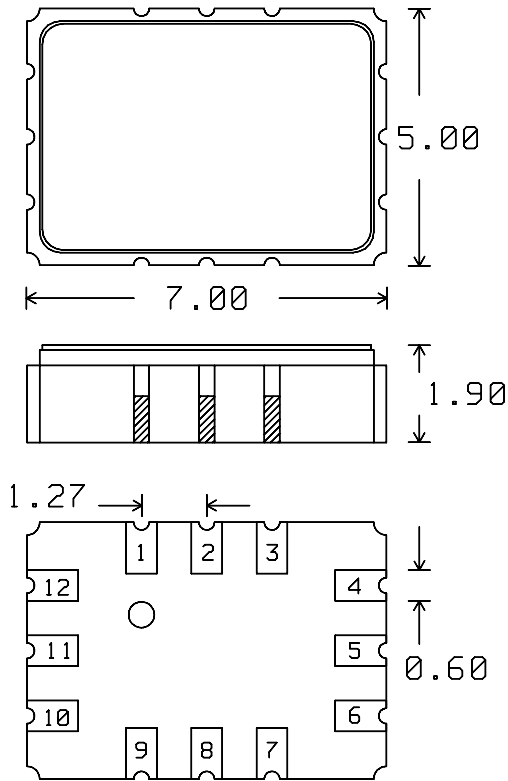
Typical component values:

$$\begin{aligned} L_{s1} &= 15 \text{ nH} & L_{s2} &= 12 \text{ nH} \\ C_{p1} &= 8 \text{ pF} & C_{p2} &= 7 \text{ pF} \end{aligned}$$

Notes:

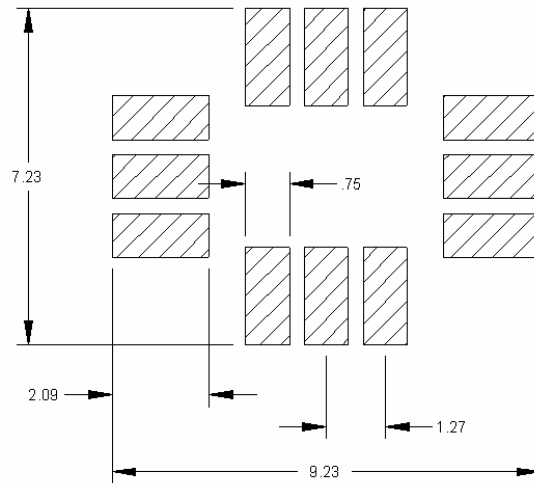
1. Recommend use of 2% tolerance matching components. Typical inductor Q=40.
2. Component values are for reference only and may change depending on board layout.

**PACKAGE OUTLINE**



Package Material:  
Body: Al<sub>2</sub>O<sub>3</sub> ceramic  
Lid: Kovar, Ni plated  
Terminations: Au plating 1 µm min,  
over a 1.3-8.9 µm Ni plating

**SUGGESTED FOOTPRINT**



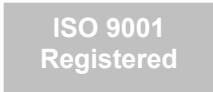
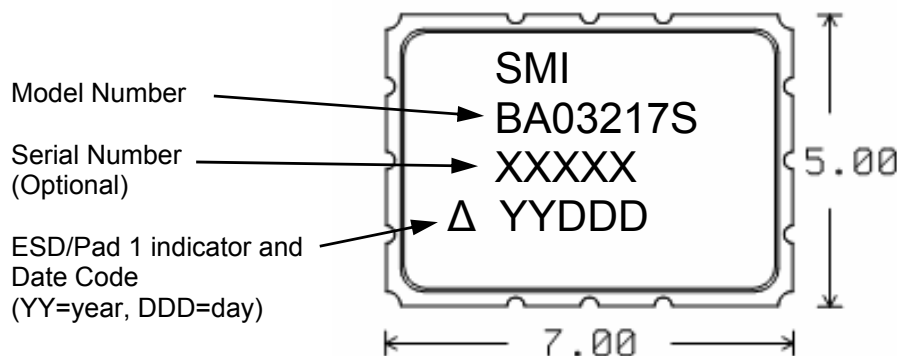
**Units:** mm

Tolerances are ±0.15 mm except for the overall length and width, which are nominal values.

**Pad Configuration:**

Input:	12
Input return:	10
Output:	6
Output return:	4
Ground:	All other pads

**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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