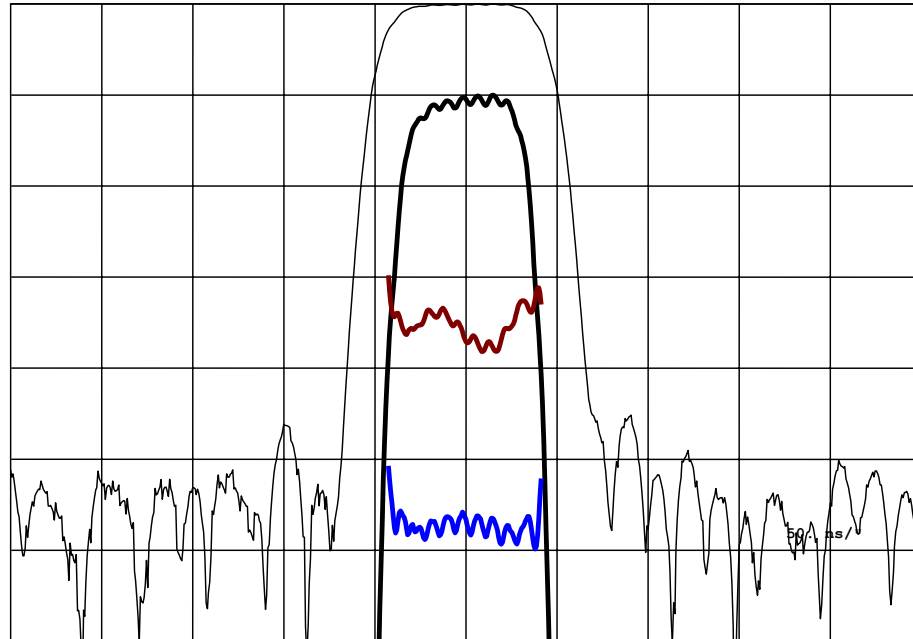


DESCRIPTION

- 140 MHz SAW bandpass filter with 4 MHz bandwidth in 13.3 x 6.5 mm SMP.
- RoHS compliant.

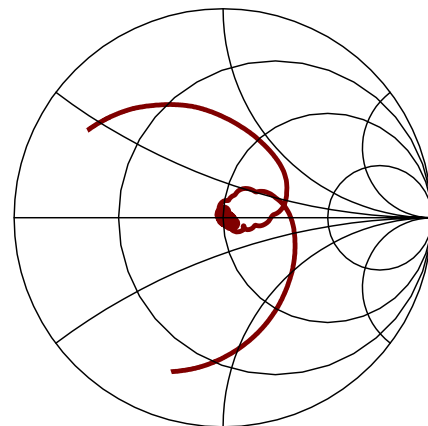
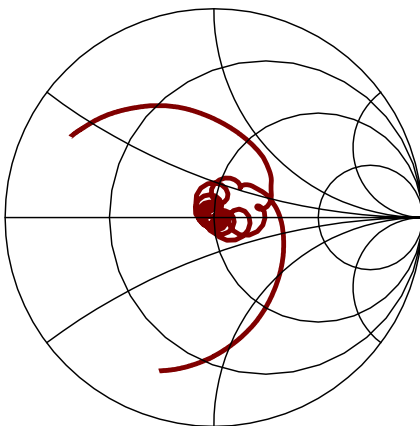
TYPICAL PERFORMANCE



Horizontal:	Frequency	3	MHz / div
Vertical (from top):	Magnitude	10	dB/div
	Magnitude	1	dB/div
	Phase Deviation	3	deg/div
	Group Delay Deviation	50	ns/div

S11

S22



SPECIFICATION

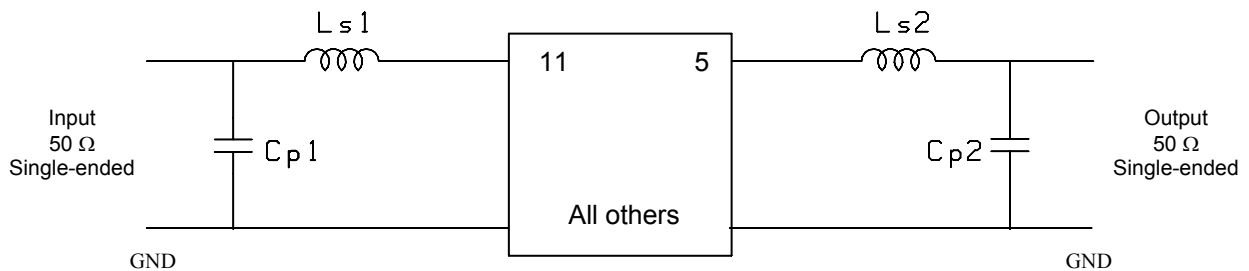
Parameter	Min	Typ	Max	Units
Center Frequency, F_c ¹	139.60	140.00	140.40	MHz
Insertion Loss at F_c	-	9.8	11	dB
1 dB Bandwidth ²	3.7	4.2	-	MHz
3 dB Bandwidth ²	4.0	5.1	-	MHz
40 dB Bandwidth ²	-	7.8	8.3	MHz
Rejection (70 MHz to 135.45 MHz) ² (144.55 MHz to 210 MHz) ²	43	47	-	dB
Passband Ripple (138.2 to 141.8 MHz)	-	0.4	0.7	dB p-p
Phase Ripple (138.2 to 141.8 MHz)	-	2	3	deg p-p
Group Delay Variation (138.2 to 141.8 MHz)	-	30	50	ns p-p
Temperature coefficient	-	-23	-	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.
 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	0	70	°C
Input Power Level		10	dBm

MATCHING CIRCUIT



Typical component values:
(Minimum inductor Q = 40)

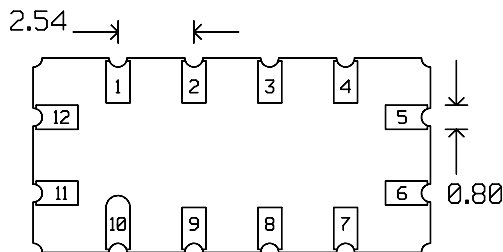
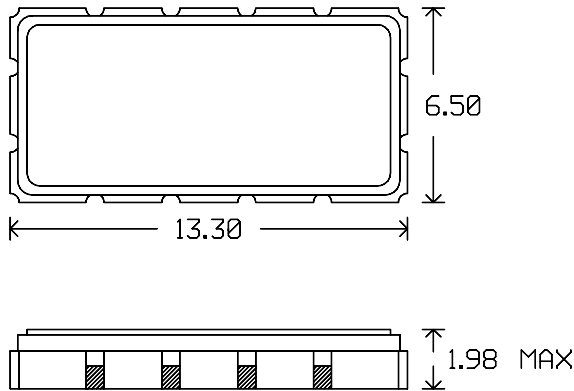
$$\begin{aligned} L_{s1} &= 75 \text{ nH} \\ C_{p1} &= 47 \text{ pF} \end{aligned}$$

$$\begin{aligned} L_{s2} &= 75 \text{ nH} \\ C_{p2} &= 47 \text{ pF} \end{aligned}$$

Notes:

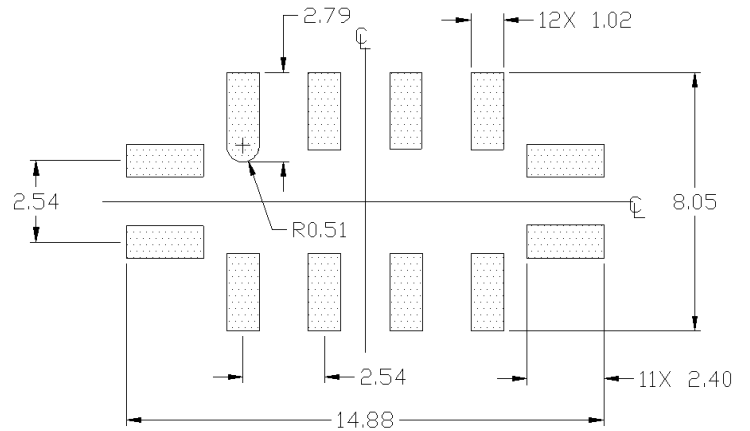
1. Recommend use of 2% tolerance matching components.
2. Component values shown are for guidance only and may change depending on board layout.

PACKAGE OUTLINE



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

SUGGESTED FOOT PRINT



Units: mm

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

Pad Configuration:

Input: 11
Output: 5
Ground: 1,2,3,5,7,8,9,10

ISO 9001
Registered

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