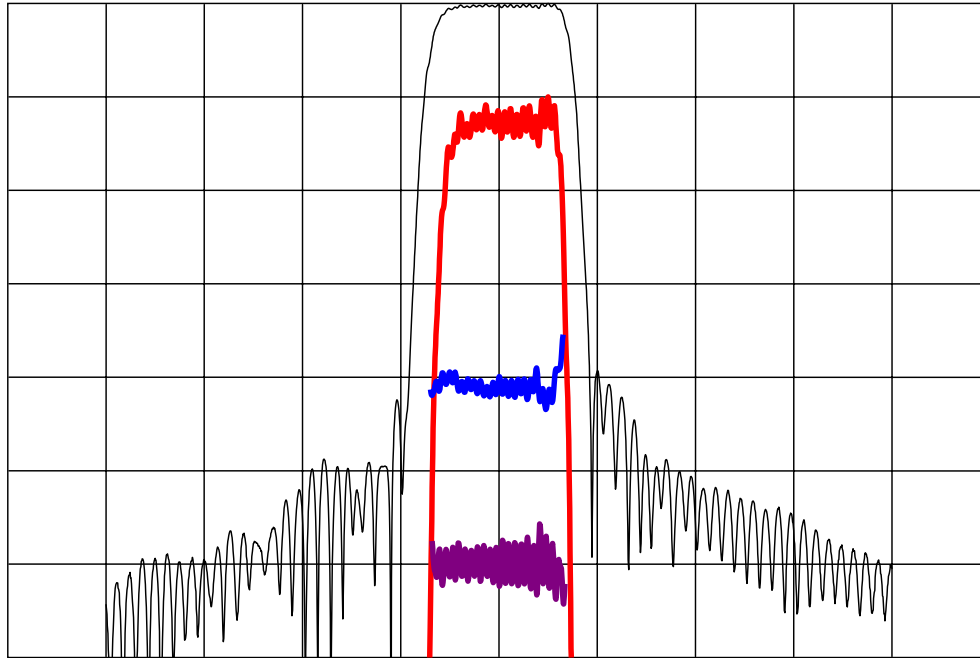


DESCRIPTION

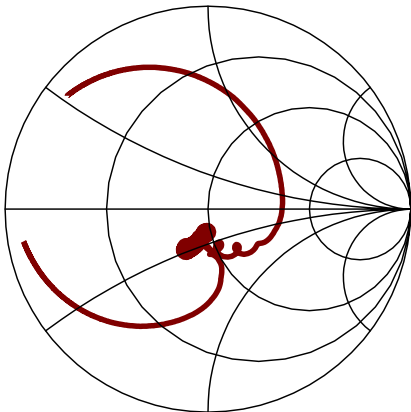
- 238.5 MHz SAW bandpass filter with 10 MHz bandwidth.
- 5 x 7 mm LCC package.
- RoHS compliant.

TYPICAL PERFORMANCE

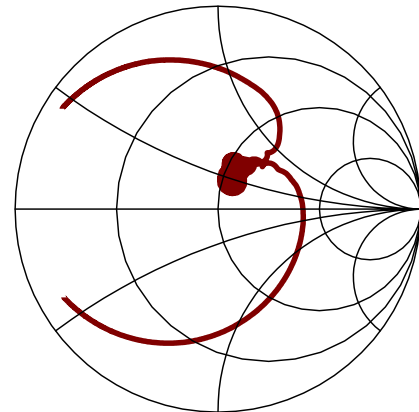


Horizontal: Frequency : 10 MHz/div
 Vertical from Top: Relative Magnitude : 10 dB/div
 Relative magnitude : 1 dB/div
 Phase Linearity : 10 deg/div
 Group Delay Deviation : 100 ns/div

S11 (188.5-288.5 MHz)



S22 (188.5-288.5 MHz)



SPECIFICATION

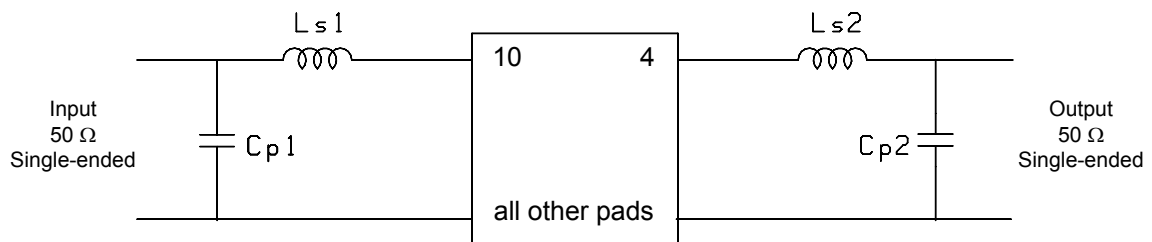
Parameter	Min	Typ	Max	Units
Center Frequency (Fc)	-	238.5	-	MHz
Insertion Loss	-	11.5	13.5	dB
Passband Ripple ¹	-	0.6	1.5	dB p-p
Phase Deviation from Linear ¹	-	9	-	deg. p-p
1.5 dB Bandwidth	8.84	9.2	-	MHz
Rejection (138.5 to 218.5 MHz)	45	49	-	dB
Rejection (218.5 to 228.5 MHz)	30	40	-	dB
Rejection (228.5 to 230 MHz)	10	21	-	dB
Rejection (247 to 248.5 MHz)	10	25	-	dB
Rejection (248.5 to 258.5 MHz)	30	38	-	dB
VSWR over Fc ± 4.42 MHz	-	2.2	2.5	:1
System Source and Load Impedance	50			Ω
Ambient Temperature	-	25	-	°C

- Notes: 1. Evaluated over any 4 MHz contiguous bandwidth within 238.5 ± 5 MHz.
2. Limits are met over the full operating temperature range.

MAXIMUM RATINGS

Parameter	Min	Typ	Max	Units
Storage Temperature Range	-40	25	85	°C
Operating Temperature Range	-20	25	85	°C
Input Power Level	-	10	20	dBm

MATCHING CIRCUIT



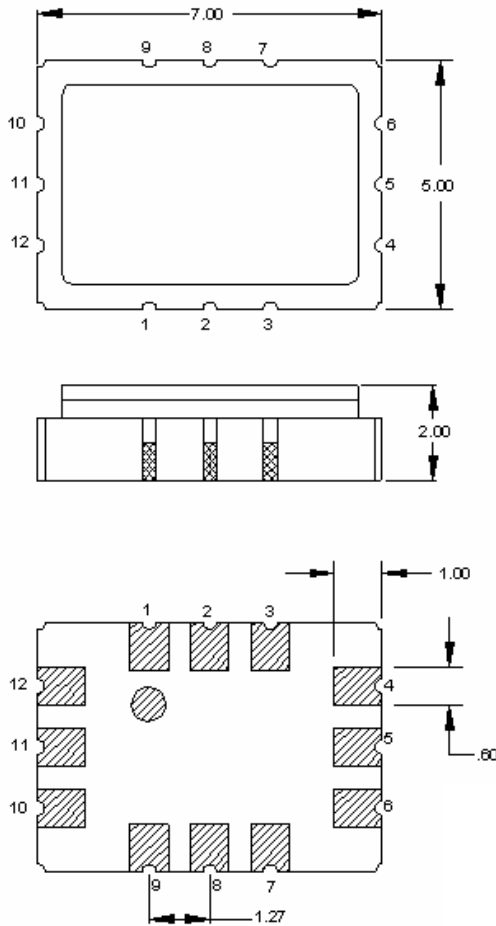
Typical component values:

$$\begin{array}{ll} L_{s1} = 18 \text{ nH} & L_{s2} = 22 \text{ nH} \\ C_{p1} = 39 \text{ pF} & C_{p2} = 33 \text{ pF} \end{array}$$

Notes:

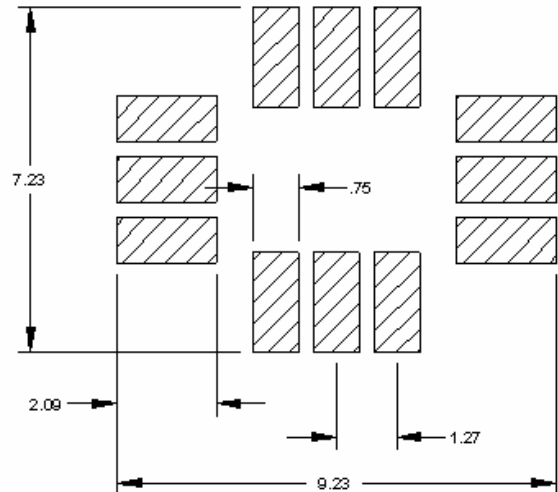
1. Recommend use of 2% tolerance matching components. Inductor Q=45.
2. Component values are for reference only and may change depending on board layout.

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 FOOTPRINT



Units: mm

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

Pad Configuration:

Input: 10
Output: 4
Ground: All other pads

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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