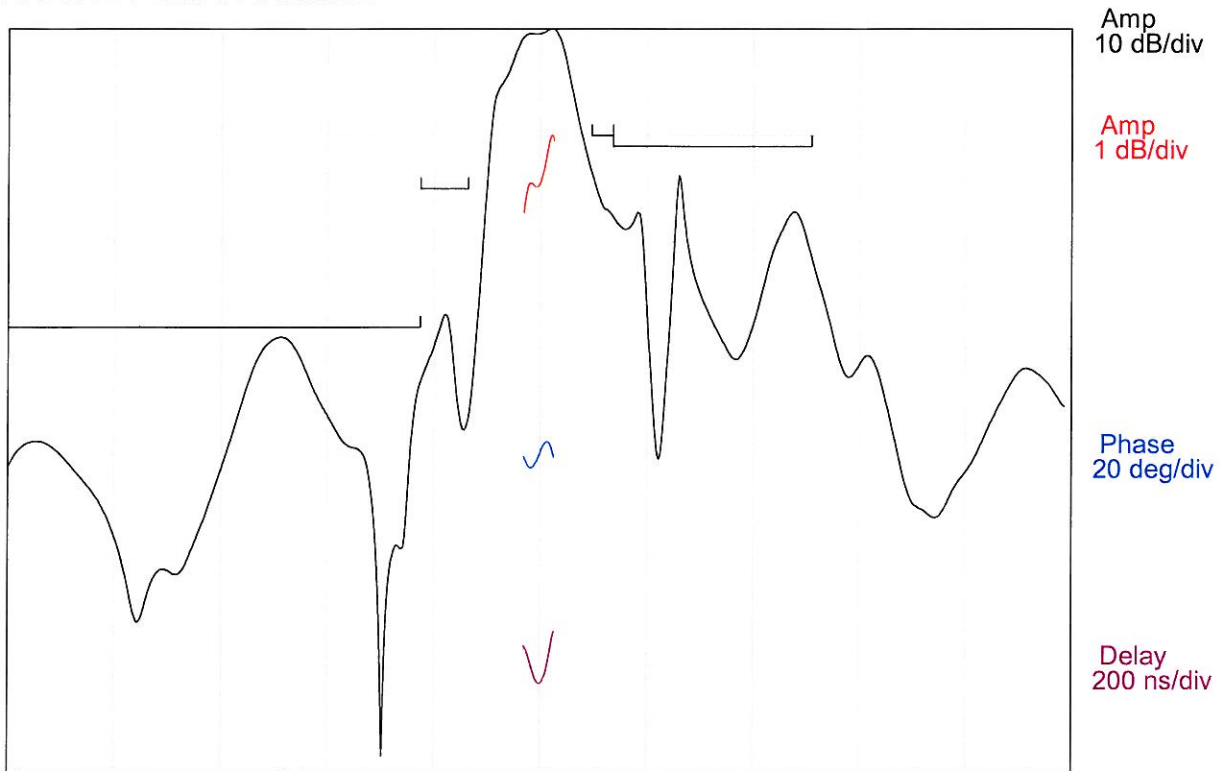


DESCRIPTION

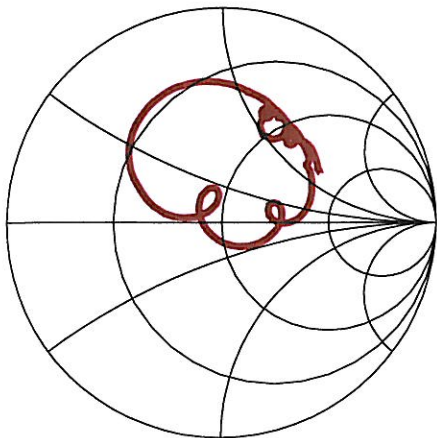
- 869.6 MHz SAW bandpass filter with 1 MHz bandwidth.
- 5 x 5 mm ceramic LCC package, 8 pads.
- RoHS compliant.

TYPICAL PERFORMANCE

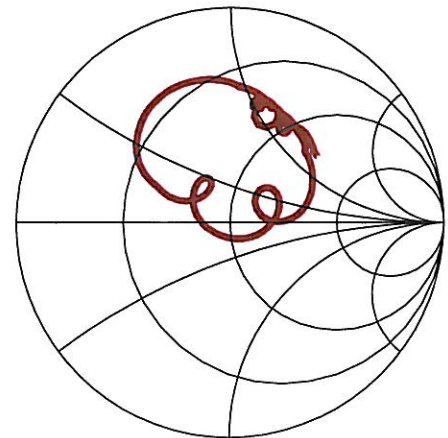


Center = 869.75 MHz, 4.03 MHz/div (50 kHz incr)

S11 (849.6-889.9 MHz)



S22 (848.6-889.9 MHz)



SPECIFICATION

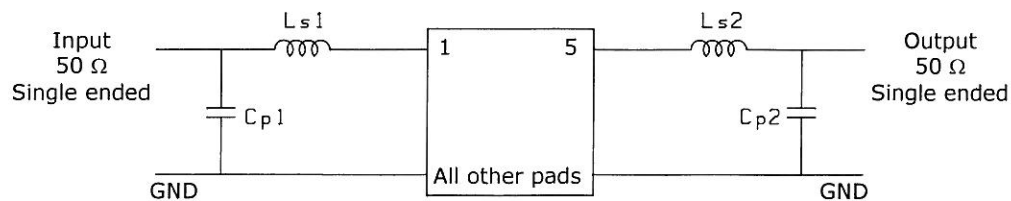
Parameter	Min	Typ	Max	Units
Center Frequency, F_c ¹	-	869.6	-	MHz
Minimum Insertion Loss (869.2 to 870.18 MHz)	-	3.0	4.7	dB
Amplitude Ripple (869.2 to 870.18 MHz) ²	-	1.0	3.0	dB p-p
Amplitude Ripple (869.12 to 870.26 MHz) ²	-	1.5	6.0	dB p-p
3 dB Bandwidth ²	-	1	-	MHz
Relative Attenuation (10 – 700 MHz) ²	55	60	-	dB
Relative Attenuation (700 – 843 MHz) ²	40	45	-	dB
Relative Attenuation (843 – 865.2 MHz) ²	28	31	-	dB
Relative Attenuation (865.2 – 867 MHz) ²	15	22	-	dB
Relative Attenuation (871.69 – 872.5 MHz) ²	10	15	-	dB
Relative Attenuation (872.5 – 880 MHz) ²	11	16	-	dB
Relative Attenuation (880 – 910 MHz) ²	15	20	-	dB
Relative Attenuation (910 - 1000 MHz) ²	45	50	-	dB
Input Impedance at F_c : $Z_{IN} = R_{IN} // C_{IN}$	117Ω // 3.7 pF			-
Output Impedance at F_c : $Z_{OUT} = R_{OUT} // C_{OUT}$	117Ω // 3.7 pF			-
Source and Load Impedance	50			Ω
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.
 3. Referenced to the matched operating condition.

MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-45	90	°C
Operating Temperature Range	-45	90	°C
DC Voltage	-	0	V
Input Power Level	-	0	dBm

MATCHING CIRCUIT

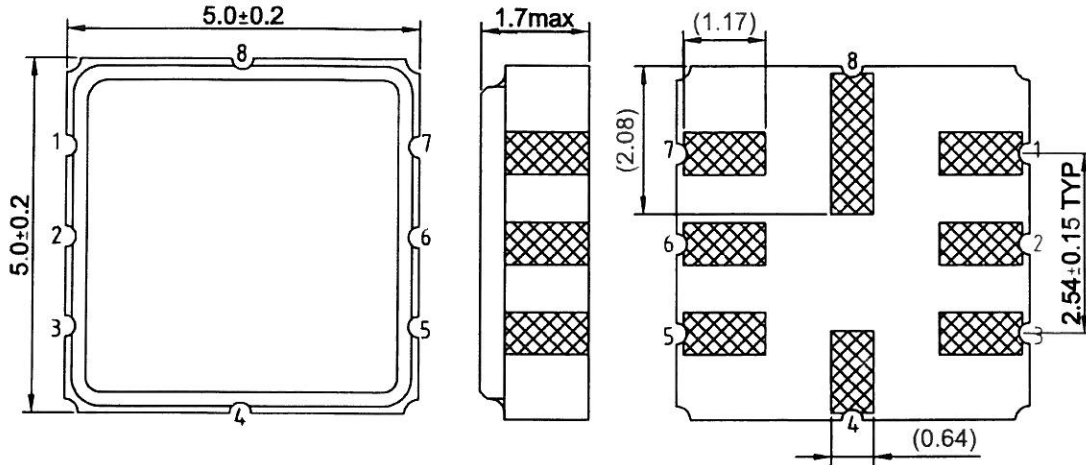


$$L_{s1}=12 \text{ nH}, C_{p1}=5 \text{ pF}, L_{s2}=12 \text{ nH}, C_{p2}=5 \text{ pF}$$

Notes:

- Recommend $\pm 2\%$ toleranced matching components. Typical inductor $Q=40$.
- Values shown are for reference only. Actual values are dependent upon board layout.

PACKAGE OUTLINE

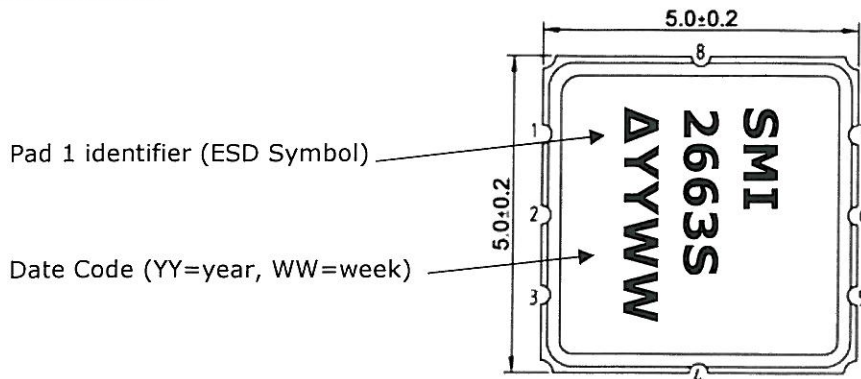


Units: mm
 Tolerances are ±0.15 mm except where indicated.

Pad Configuration:
 Input: 1
 Output: 5
 Ground: 2, 3, 4, 6, 7, 8

Package Material:
 Body: Al₂O₃ ceramic
 Lid: Kovar, Ni plated
 Terminations: Au plating 1 µm min,
 over a 1.3-8.9 µm 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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