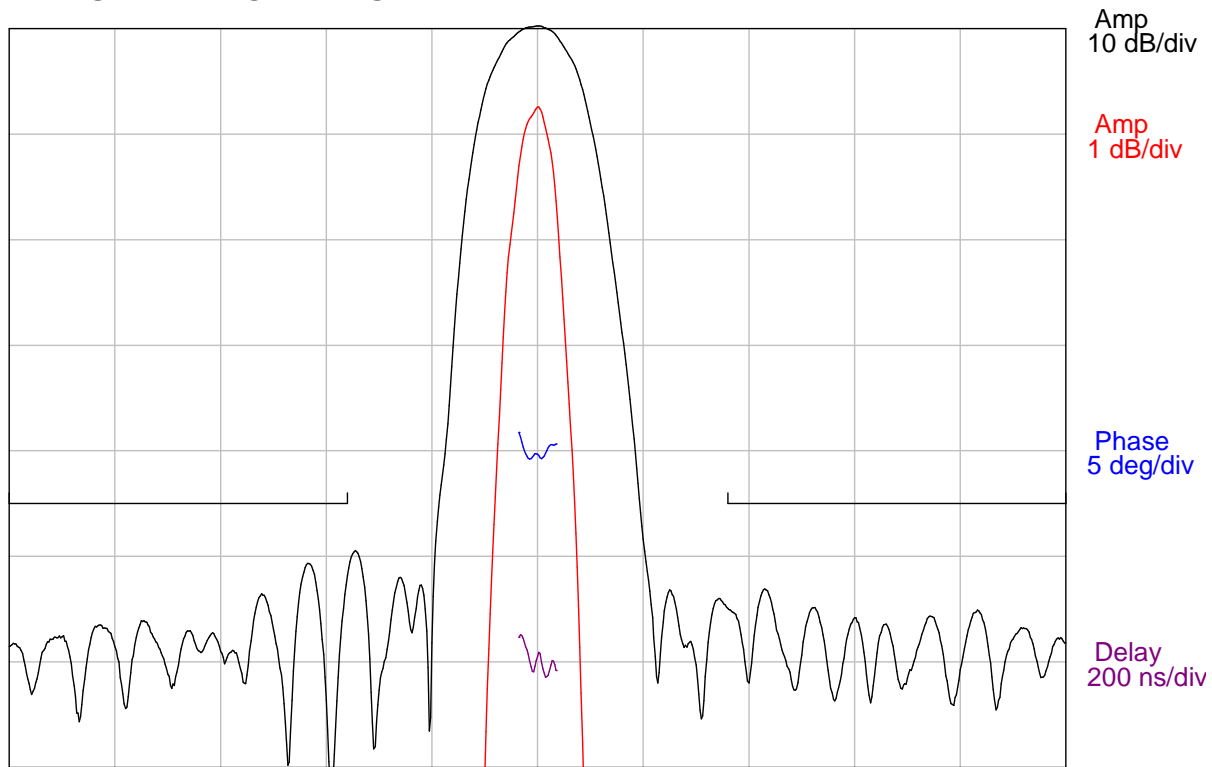


DESCRIPTION

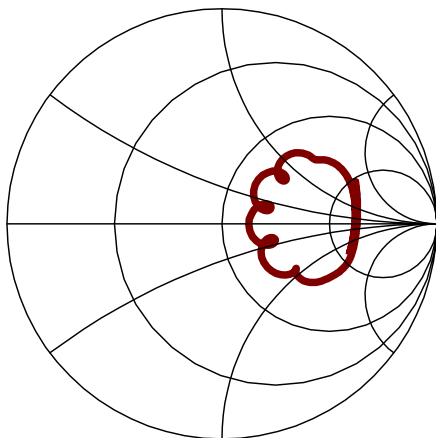
- 315 MHz SAW bandpass filter with 0.35 MHz Bandwidth.
- 19 x 6.5 mm ceramic LCC package with 10 pads.
- RoHS compliant.

TYPICAL PERFORMANCE

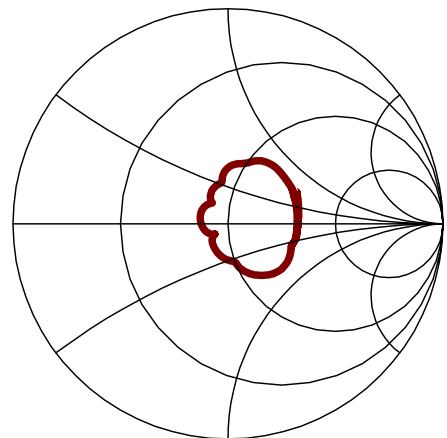


Center = 315 MHz, 1 MHz/div (12.5 kHz incr)

S11 (310-320 MHz)



S22 (310-320 MHz)



SPECIFICATION

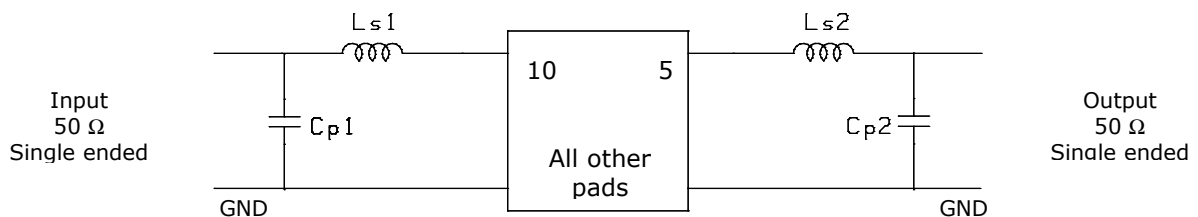
Parameter	Min	Typ	Max	Units
Center Frequency, (F_c) ^{1,3}	314.95	315	315.05	MHz
Average Loss ($F_c \pm 0.175$ MHz)	-	9	14	dB
Absolute Delay	-	2.14	-	us
1 dB bandwidth ²	0.35	0.46	-	MHz
3 dB Bandwidth ²	0.5	0.7	-	MHz
35 dB Bandwidth ²	-	1.7	1.8	MHz
45 dB Bandwidth ²	-	1.9	2.5	MHz
Passband Ripple ($F_c \pm 0.15$ MHz)	-	0.8	1	dB p-p
Group Delay Ripple ($F_c \pm 0.175$ MHz)	-	80	150	ns p-p
Attenuation (50-313.2 MHz) ²	45	50	-	dB
Attenuation (316.8-500 MHz) ²	45	55	-	dB
Source and Load Impedance	50			ohms
Turnover Temperature (T_c)	-	30	-	°C

- Notes:
1. Reference frequency at 23°C which is computed as mean of the 3 dB frequencies.
 2. All dB values are referenced to the insertion loss value.
 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). T_c = the turnover temperature

MAXIMUM RATINGS

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

MATCHING CIRCUIT

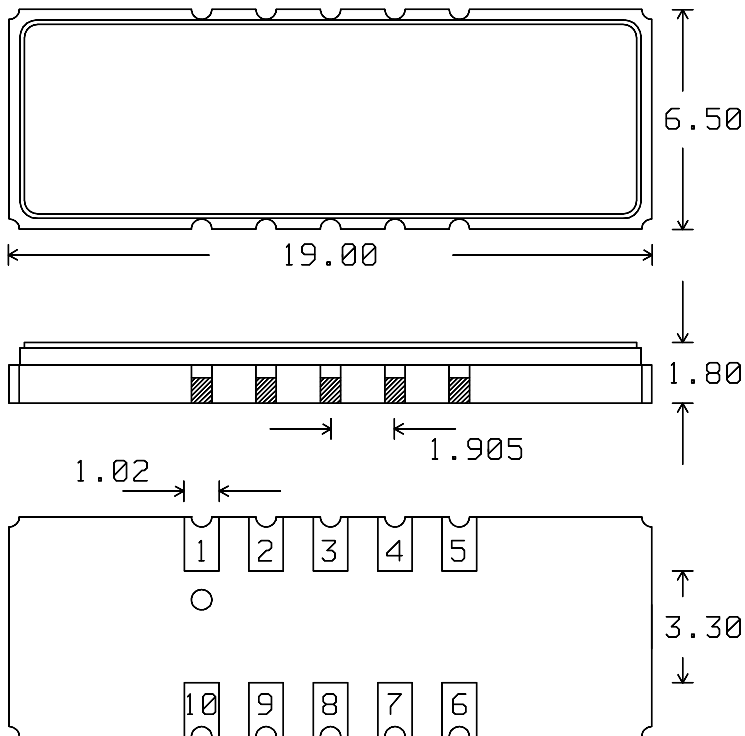


$$L_{s1} = 12 \text{ nH}, C_{p1} = 22 \text{ pF}, L_{s2} = 30 \text{ nH}, C_{p2} = 15 \text{ pF}$$

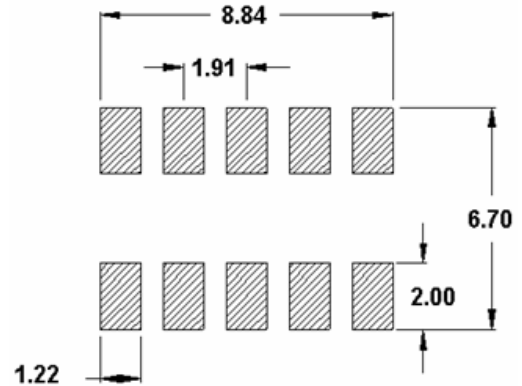
Notes:

- Recommend 2% or better tolerance matching components. Typical inductor $Q=40$.
- Optimum values may change depending on board layout. Values shown are intended as a guide only.

PACKAGE OUTLINE



SUGGESTED FOOTPRINT



Units: mm

Tolerances are typically ± 0.15 mm except where indicated.

Pad Configuration:

Input: 10
 Output: 5
 Ground: All other pads

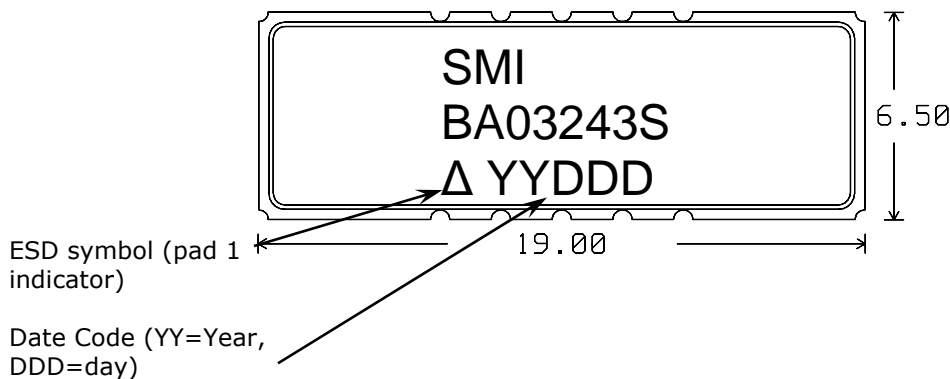
Package Material:

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

MARKING



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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