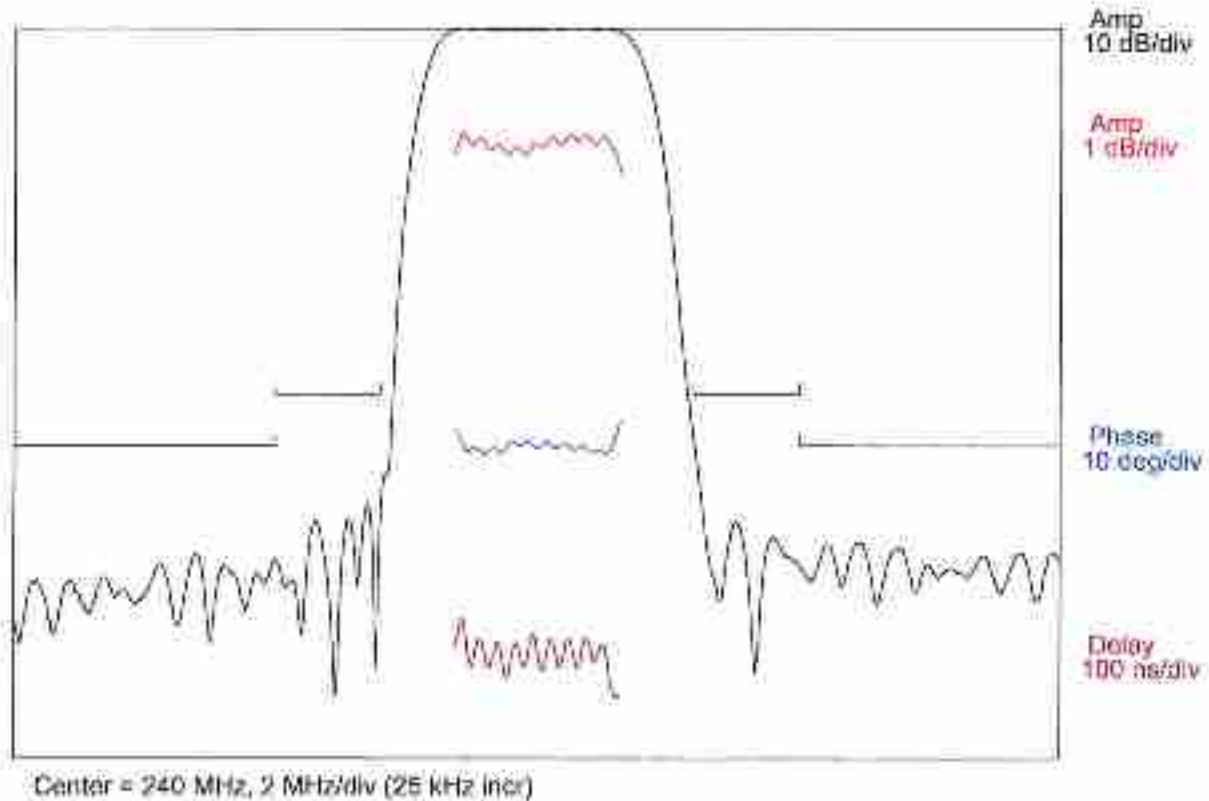


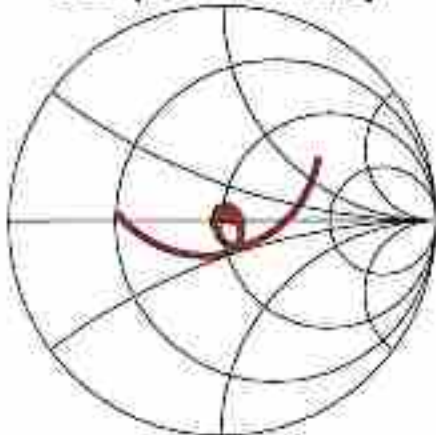
DESCRIPTION

- 240 MHz SAW bandpass filter with minimum 3.4 MHz Bandwidth.
- 13.3 x 6.5 mm ceramic LCC package with 10 pads.
- RoHS compliant.

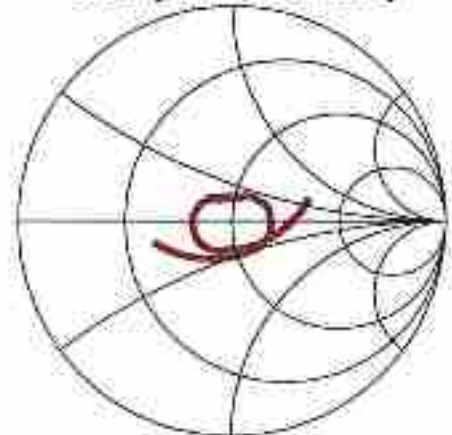
TYPICAL PERFORMANCE



S11 (230-250 MHz)



S22 (230-250 MHz)



SPECIFICATION

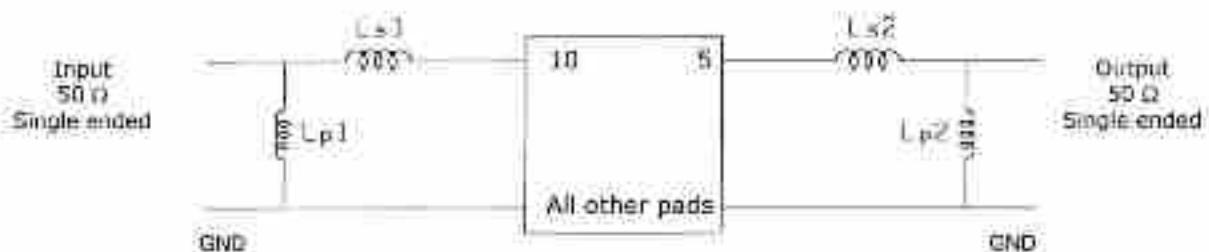
Parameter	Min	Typ	Max	Units
Center Frequency, (F_c) ^{1,2}	-	240	-	MHz
Minimum Insertion Loss	-	15.1	16	dB
1 dB bandwidth ²	3.4	3.5	-	MHz
Lower 1 dB Frequency ²	-	238.15	238.3	MHz
Upper 1 dB Frequency ²	241.7	241.76	-	MHz
12 dB Bandwidth ²	-	4.81	5	MHz
Lower 12 dB Frequency ²	237.5	237.58	-	MHz
Upper 12 dB Frequency ²	-	242.39	242.5	MHz
Passband Ripple ($F_c \pm 1.6$ MHz)	-	0.5	1	dB p-p
Phase Ripple ($F_c \pm 1.6$ MHz)	-	3	5	dB p-p
Group Delay Ripple ($F_c \pm 1.6$ MHz)	-	70	120	ns p-p
Attenuation (235-237 MHz) ²	35	40	-	dB
Attenuation (243-245 MHz) ²	35	40	-	dB
Attenuation (170-235 MHz) ²	40	45	-	dB
Attenuation (245-310 MHz) ²	40	45	-	dB
In/Out Return Loss ($F_c \pm 1.6$ MHz)	10	12	-	dB
Source and Load Impedance	50			ohms
Turnover Temperature (T_c)	-	35	-	°C

- Notes:
1. Reference frequency at 23°C, computed as mean of the 12 dB frequencies.
 2. All dB values are referenced to the insertion loss value.
 3. Frequency versus temperature will be according to the following: $dF_c/F_c = -0.032 \text{ ppm} \times (T - T_c)$ where (dF_c/F_c) = Change in center frequency (in ppm) and T = temperature (in degrees C). T_c = the turnover temperature

MAXIMUM RATINGS

	-40	85	°C
Storage Temperature Range	-40	85	°C
Operating Temperature Range (T)	-40	85	°C
Input Power Level	-	+13	dBm

MATCHING CIRCUIT

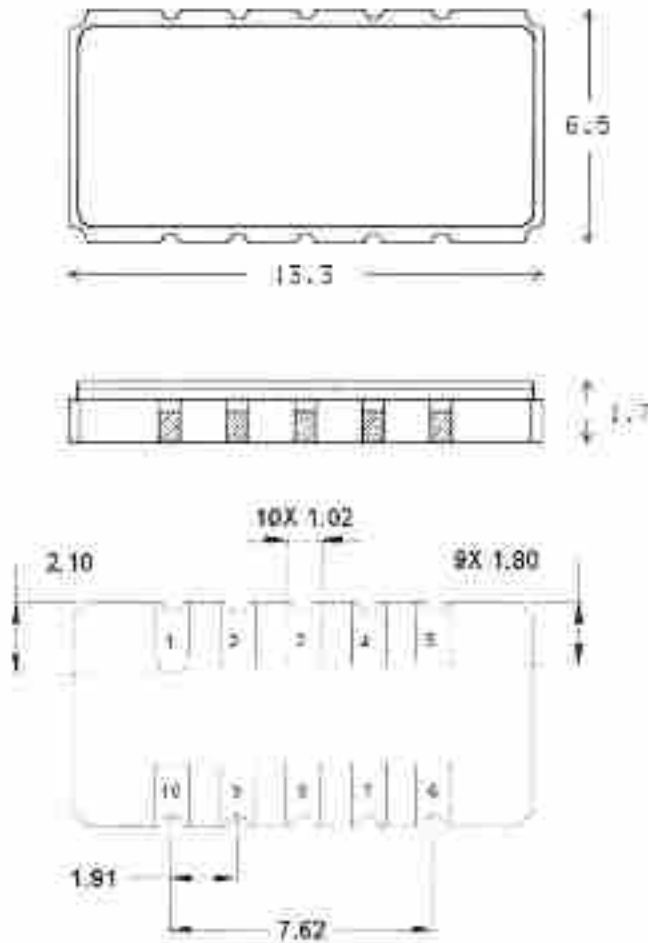


$$L_{s1} = 30 \text{ nH}, L_{p1} = 11 \text{ nH}, L_{s2} = 18 \text{ nH}, L_{p2} = 12 \text{ nH}$$

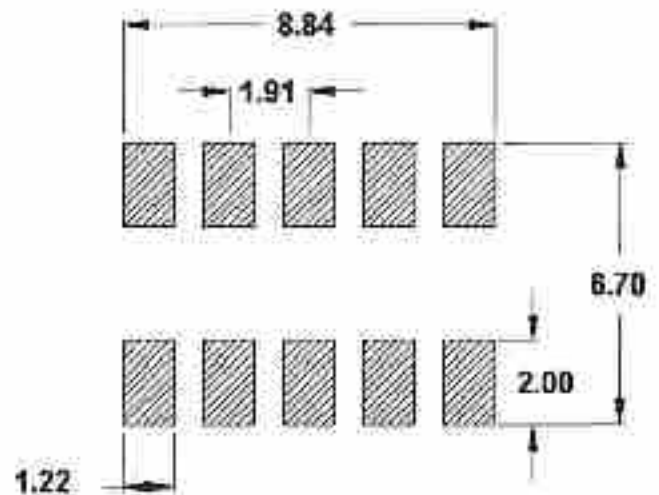
Notes:

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

PACKAGE OUTLINE



SUGGESTED FOOTPRINT



Units: mm

Tolerances are typically ± 0.15 mm except where indicated.

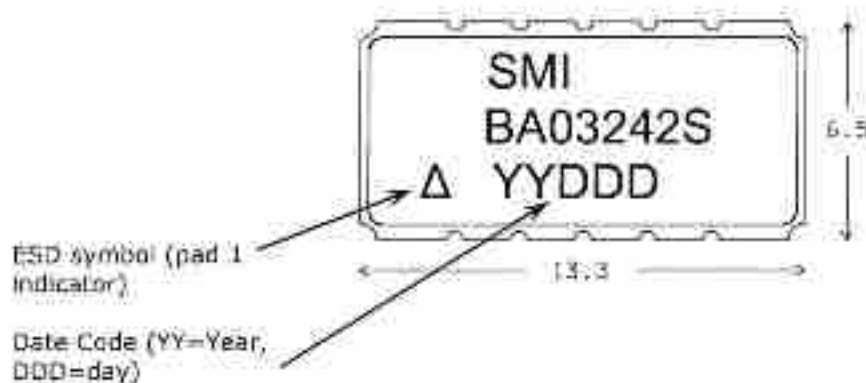
Pad Configuration:

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



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