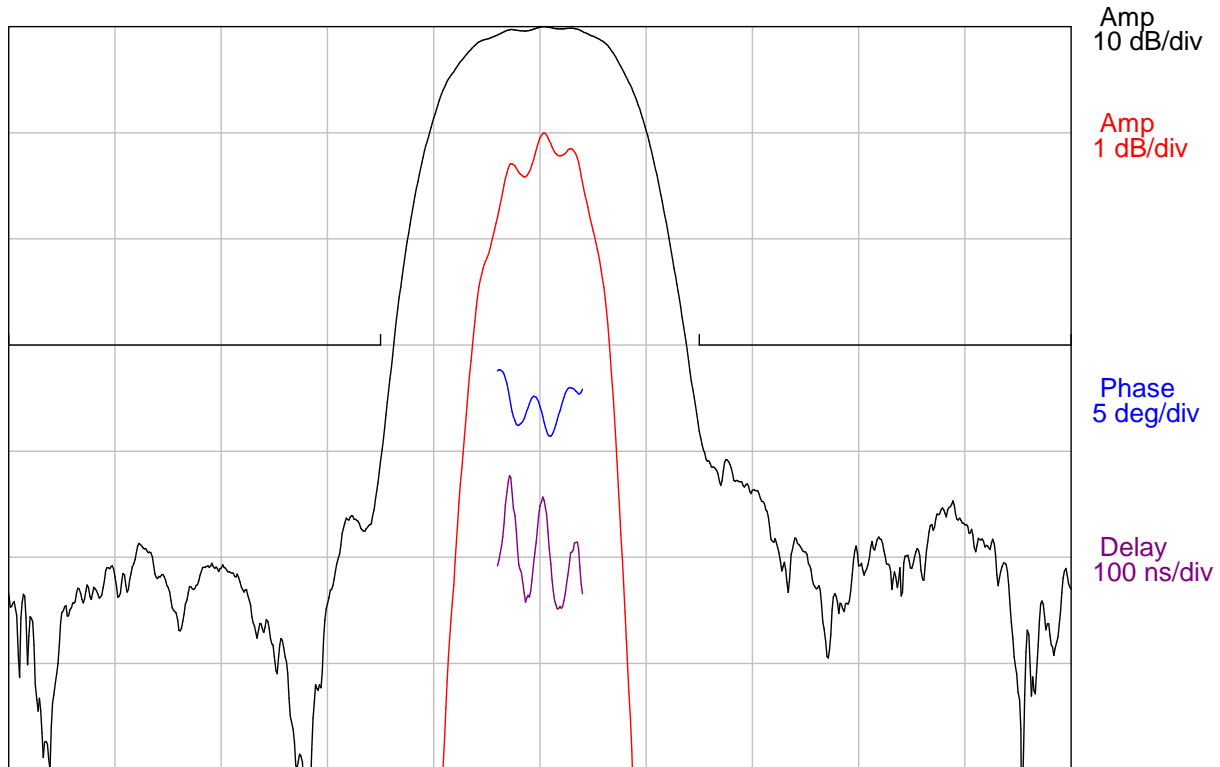


DESCRIPTION

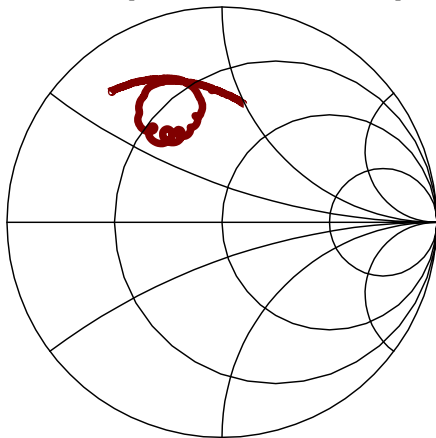
- 70.56 MHz bandpass filter with 0.8 MHz bandwidth.
- 13.3 x 6.5 mm ceramic LCC, 12 pads.
- RoHS compliant.

TYPICAL PERFORMANCE

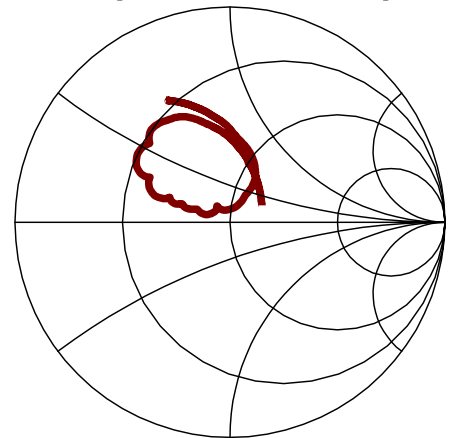


Center = 70.56 MHz, 1 MHz/div (12.5 kHz incr)

S11 (65.56-75.56 MHz)



S22 (65.56-75.56 MHz)



SPECIFICATION

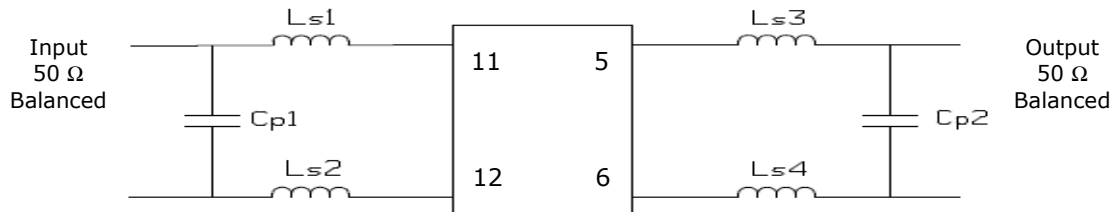
Parameter	Min	Typ	Max	Units
Center Frequency, F_c ¹	-	70.56	-	MHz
Minimum Insertion Loss	-	10.6	12	dB
Lower 1 dB Frequency ²	-	70.1	70.16	MHz
Upper 1 dB Frequency ²	70.96	71.1	-	MHz
1 dB Bandwidth ²	0.8	1	-	MHz
3 dB Bandwidth ²	1	1.5	-	MHz
30 dB Bandwidth ²	-	2.8	3	MHz
Amplitude Ripple ($F_c \pm 0.4$ MHz)	-	0.85	1	dB p-p
Phase Ripple ($F_c \pm 0.4$ MHz)	-	3	6	deg p-p
Group Delay Ripple ($F_c \pm 0.4$ MHz)	-	125	200	ns p-p
Rejection (49.56 to 69.06 MHz) ²	30	45	-	dB
Rejection (72.06-89.56 MHz)	30	37	-	dB
Rejection (20 to 49.56 MHz)	40	49	-	dB
Rejection (89.56 to 150 MHz)	40	42	-	dB
Temperature Coefficient of Frequency	-	-18	-	ppm/°C
Source/Load Impedance	50			ohms
Ambient Temperature, T_c	25			°C

- Notes: 1. Defined as the average of the lower and upper 3 dB frequencies at room ambient.
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	-20	70	°C
Input Power Level	-	10	dBm

MATCHING CIRCUIT

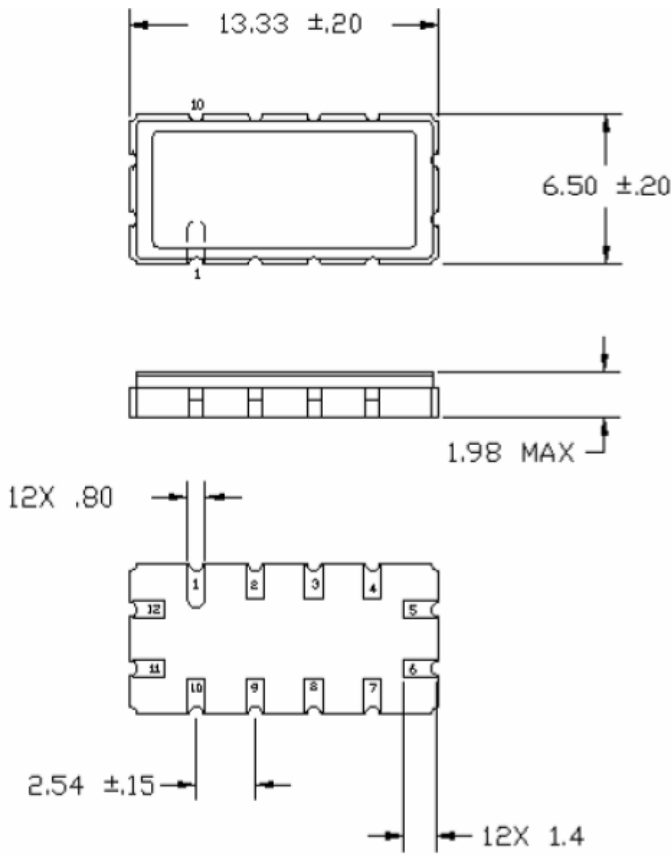


$L_{s1}=36$ nH, $L_{s2}=47$ nH, $C_{p1}=82$ pF, $L_{s3}=33$ nH, $L_{s4}=36$ nH, $C_{p2} = 120$ pF

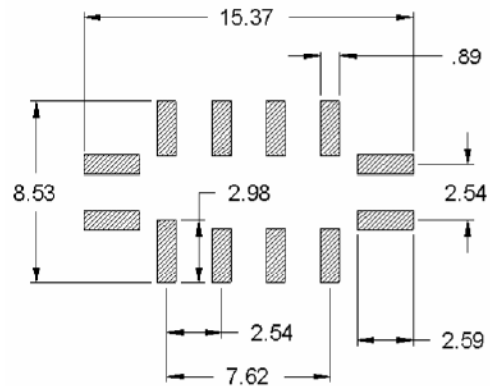
Notes:

- Recommend $\pm 2\%$ toleranced components. Typical inductor $Q=40$.
- Values shown are for reference only and may change depending on board layout.

PACKAGE OUTLINE



SUGGESTED FOOTPRINT



Units: mm

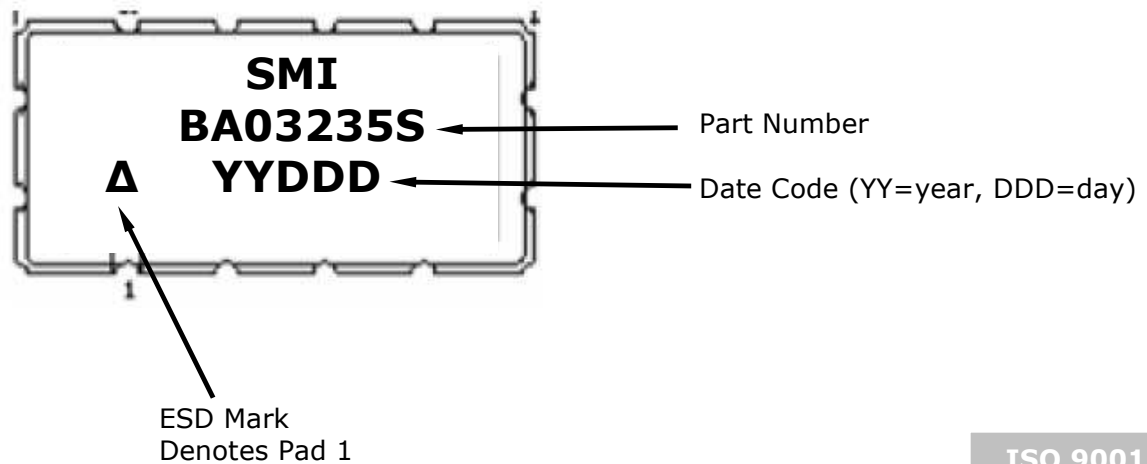
Tolerances are ±0.15 mm except where indicated.

Pad Configuration:

- Input (+): 11
- Input (-): 12
- Output (+): 5
- Output (-): 6
- Ground: All other pads

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