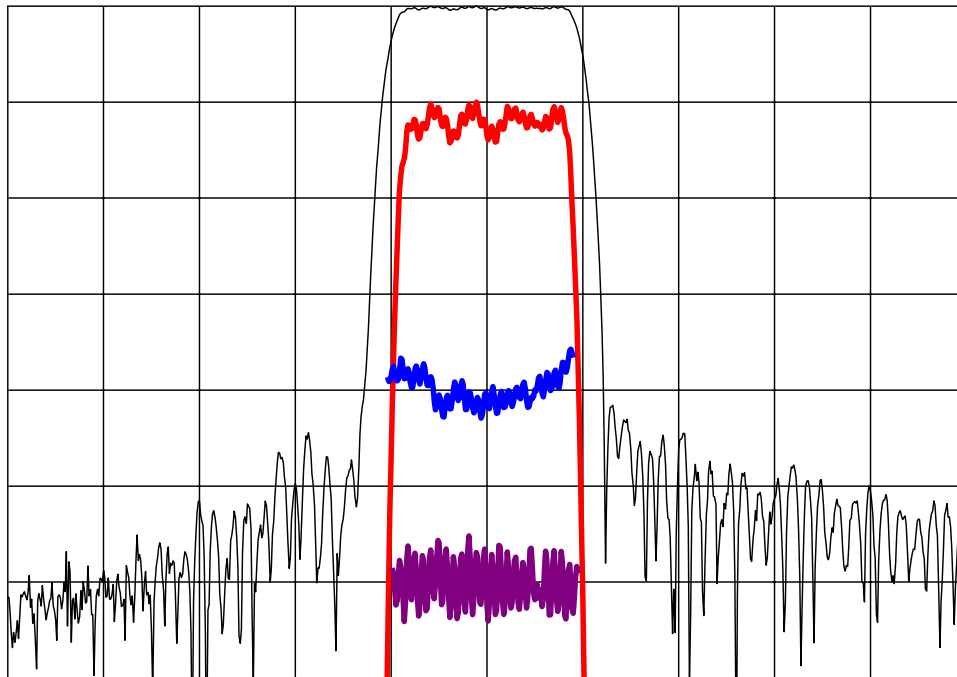


DESCRIPTION

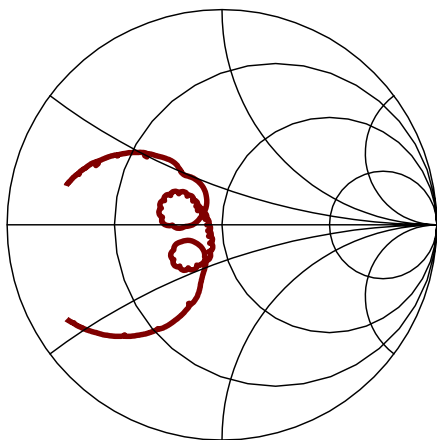
- 160 MHz SAW bandpass filter set of two with 10 MHz bandwidth.
- 22.1 x 12.7 mm DIP package, 6-14 pins.
- RoHS compliant.

TYPICAL PERFORMANCE (each filter)

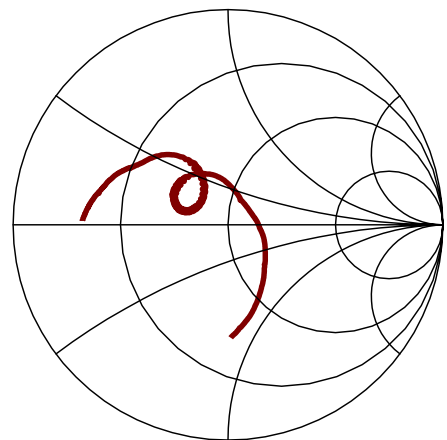


Horizontal:	Frequency	6	MHz /div
Vertical (from top):	Magnitude	10	dB/div
	Magnitude	1	dB/div
	Phase Deviation	5	deg/div
	Group Delay Deviation	50	ns/div

S11 (130-190 MHz)



S22 (130-190 MHz)



SPECIFICATION (each filter)

Parameter	Min	Typ	Max	Units
Center Frequency (Fc)	-	160.00	-	MHz
Average Insertion Loss (155-165 MHz)	-	21.3	23	dB
Loss Variation vs. Temperature (25°C to 70°C – Included in above loss)	-	0.7	0.75	dB
Amplitude Variation (155-165 MHz at 25°C)	-	0.45	0.6	dB p-p
Amplitude Variation (155-165 MHz at 0°C,70°C)	-	0.9	1.0	dB p-p
Lower 40 dB Band Edge	152.20	152.30	-	MHz
Upper 40 dB Band Edge	-	167.55	167.80	MHz
Phase Linearity (155-165 MHz)	-	2.8	4	deg p-p
Rejection (10 to 150 MHz)	40	45	-	dB
Rejection (170 to 250 MHz)	40	48	-	dB
Input VSWR	-	1.8	2.0	:1
Output VSWR	-	1.8	2.0	:1
Triple Transit Suppression	35	42	-	dB
System Source and Load Impedance	-	50	-	ohm

- Notes: 1. All parameters are evaluated with matching circuit.
2. This is single filter performance. Two filters make up a cascaded pair

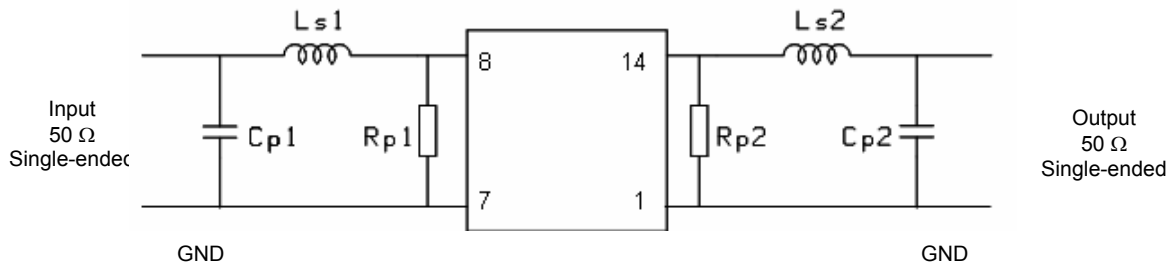
SPECIFICATION (Cascaded Set)

Parameter	Min	Typ	Max	Units
Center Frequency (Fc)	-	160.00	-	MHz
Amplitude Variation (155-165 MHz at 25°C)	-	0.9	1.2	dB p-p
Amplitude Variation (155-165 MHz at 0°, 70°C)	-	1.8	2.0	dB p-p
Lower 80 dB Band Edge	152.20	152.33	-	MHz
Upper 80 dB Band Edge	-	167.45	167.80	MHz
Phase Linearity (155-165 MHz)	-	4.5	8	deg p-p
Rejection (10 to 150 MHz)	80	90	-	dB
Rejection (170 to 250 MHz)	80	86	-	dB
System Source and Load Impedance	-	50	-	ohm

MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	°C
Operating Temperature Range	0	70	°C
Input Power Level	-	+13	dBm

MATCHING CIRCUIT (each filter)



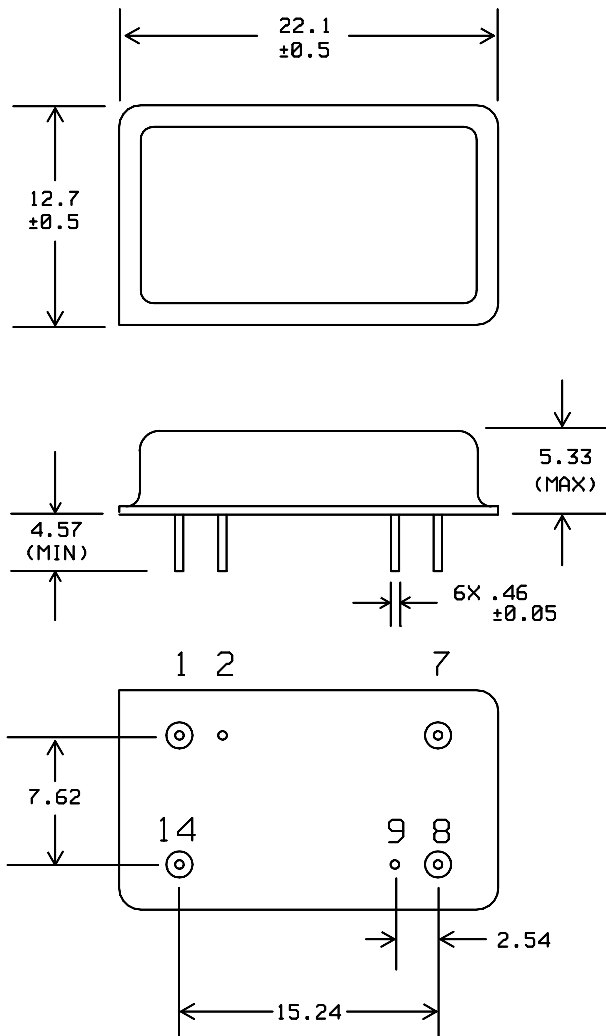
Typical component values:

$L_{s1} = 47 \text{ nH}$	$L_{s2} = 59.3 \text{ nH}$
$C_{p1} = 45 \text{ pF}$	$C_{p2} = 27 \text{ pF}$
$R_{p1} = 300 \Omega$	$R_{p2} = 300 \Omega$

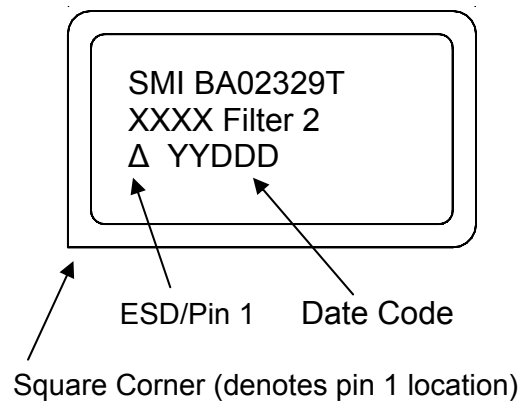
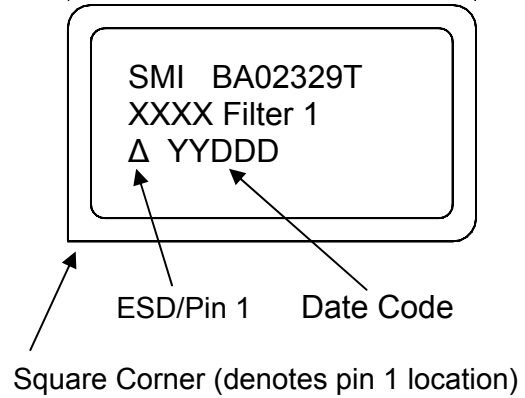
Notes:

1. Recommend +/-2% tolerance matching components. Typical inductor $Q=40$.
2. Tuning values shown are for reference only. Optimum values may change depending upon board layout

PACKAGE OUTLINE (each filter)



MARKING



Units: mm

Tolerances are ±0.15 mm except where indicated.

Pin Configuration:

Input: 8
Output: 14
Ground: 1, 2, 7, 9

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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