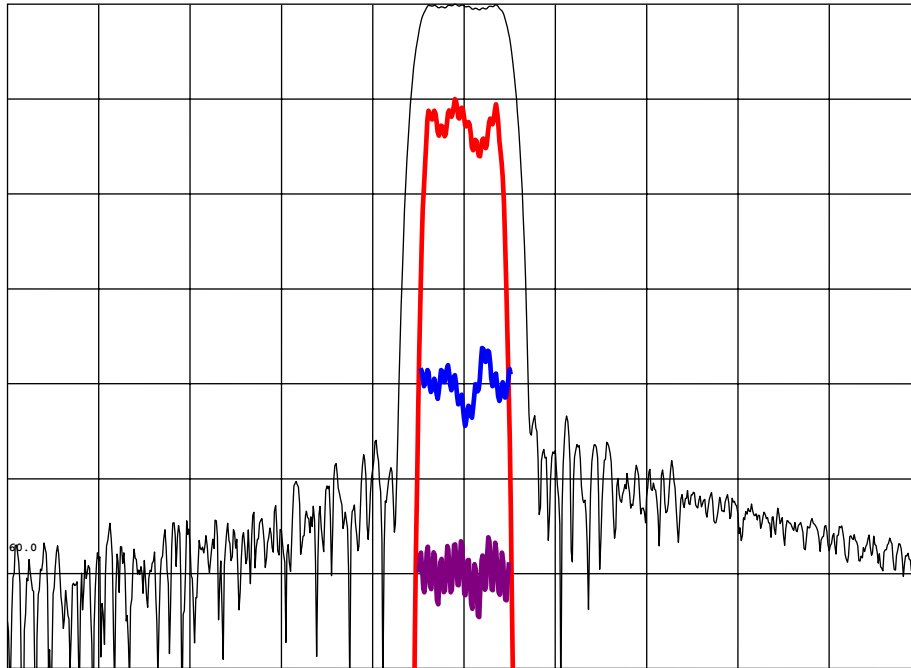


## DESCRIPTION

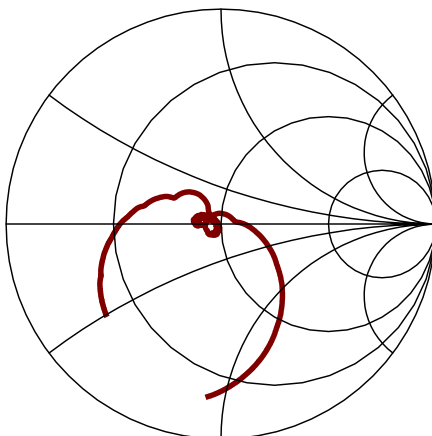
- 70 MHz SAW bandpass filter with 2.8 MHz bandwidth.
- 13.3 x 6.5 mm SMP.
- RoHS compliant.

## TYPICAL PERFORMANCE

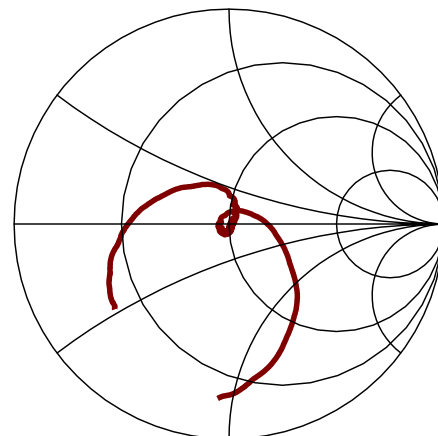


Horizontal: Frequency : 3 MHz/div  
 Vertical from Top: Relative Magnitude : 10 dB/div  
 Relative magnitude : 1 dB/div  
 Phase Linearity : 5 deg/div  
 Group Delay Deviation : 100 ns/div

**S11**



**S22**



## SPECIFICATION

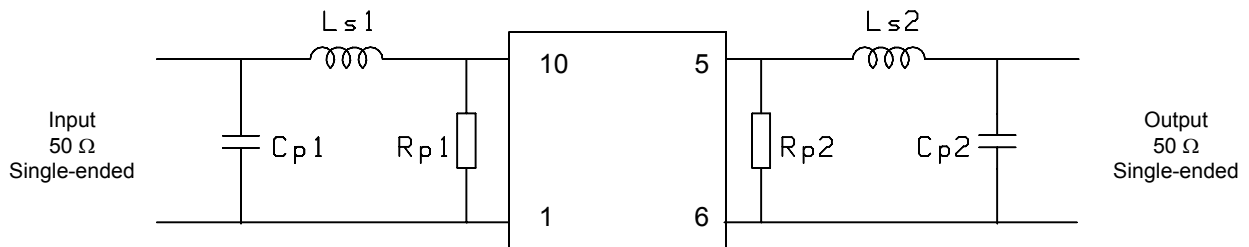
Parameter	Min	Typ	Max	Units
Center Frequency ( $F_C$ ) <sup>1</sup>	-	70	-	MHz
Minimum Insertion Loss	-	20.6	22	dB
Lower 1 dB Band Edge	-	68.23	68.60	MHz
Upper 1 dB Band Edge	71.40	71.77	-	MHz
Lower 3 dB Band Edge	-	68.03	68.20	MHz
Upper 3 dB Band Edge	71.80	71.98	-	MHz
Lower 40 dB Band Edge	67.00	67.18	-	MHz
Upper 40 dB Band Edge	-	72.86	73.00	MHz
Amplitude Variation (68.6 to 71.4 MHz)	-	0.6	1	dB p-p
Phase Linearity (68.6 to 71.4 MHz)	-	3	6	deg p-p
Group Delay Variation (68.6 to 71.4 MHz)	-	75	150	ns p-p
Absolute Delay	-	1.66	-	us
Rejection (10 to 30 MHz)	50	55	-	dB
Rejection (30 to 50 MHz)	44	50	-	dB
Rejection (90 to 110 MHz)	40	55	-	dB
Rejection (110 to 200 MHz)	50	55	-	dB
Source and Load Impedance	-	50	-	$\Omega$
Ambient Temperature	-	25	-	$^{\circ}\text{C}$

- Notes:
1. In production, devices will be tested to a guardbanded specification at room temperature. This will ensure compliance over temperature.
  2. All dB levels are measured relative to the insertion loss.

## MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	$^{\circ}\text{C}$
Operating Temperature Range	0	70	$^{\circ}\text{C}$
Input Power Level	-	10	dBm

## MATCHING CIRCUIT



Typical component values:  
(Minimum inductor Q = 40)

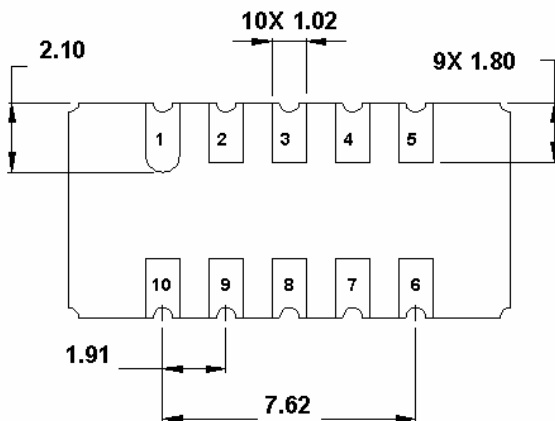
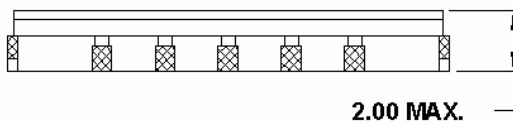
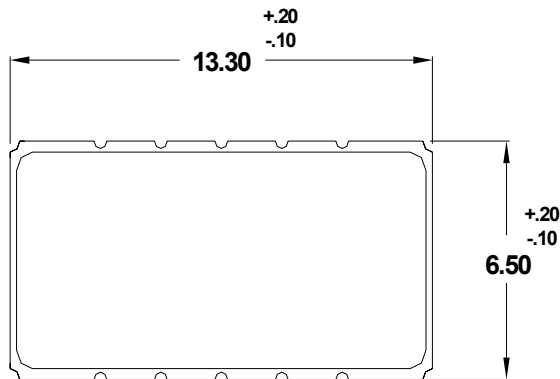
$$\begin{aligned} L_{s1} &= 189 \text{ nH} \\ C_{p1} &= 56 \text{ pF} \\ R_{p1} &= 360 \text{ } \Omega \end{aligned}$$

$$\begin{aligned} L_{s2} &= 189 \text{ nH} \\ C_{p2} &= 56 \text{ pF} \\ R_{p2} &= 360 \text{ } \Omega \end{aligned}$$

Notes:

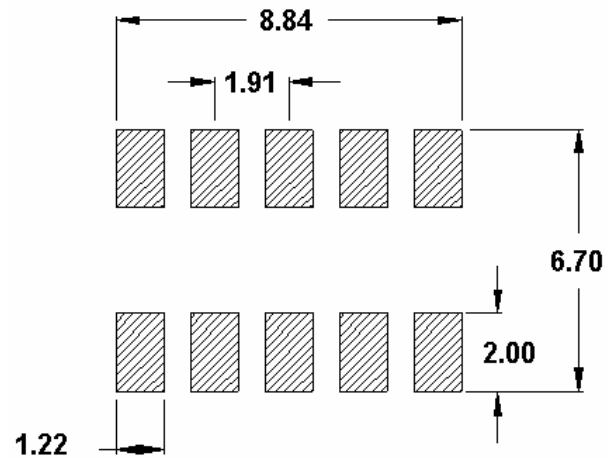
1. Recommend use of 2% tolerance matching components.
2. Component values shown are for guidance only and may change depending on board layout.

**PACKAGE OUTLINE**



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

**SUGGESTED FOOTPRINT**



Units: mm

Tolerances are  $\pm 0.15$  mm except for the overall length and width, which are nominal values.

**Pad Configuration:**

Input:	10
Input Return:	1
Output:	5
Output Return:	6
Ground:	2,3,4,7,8,9

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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