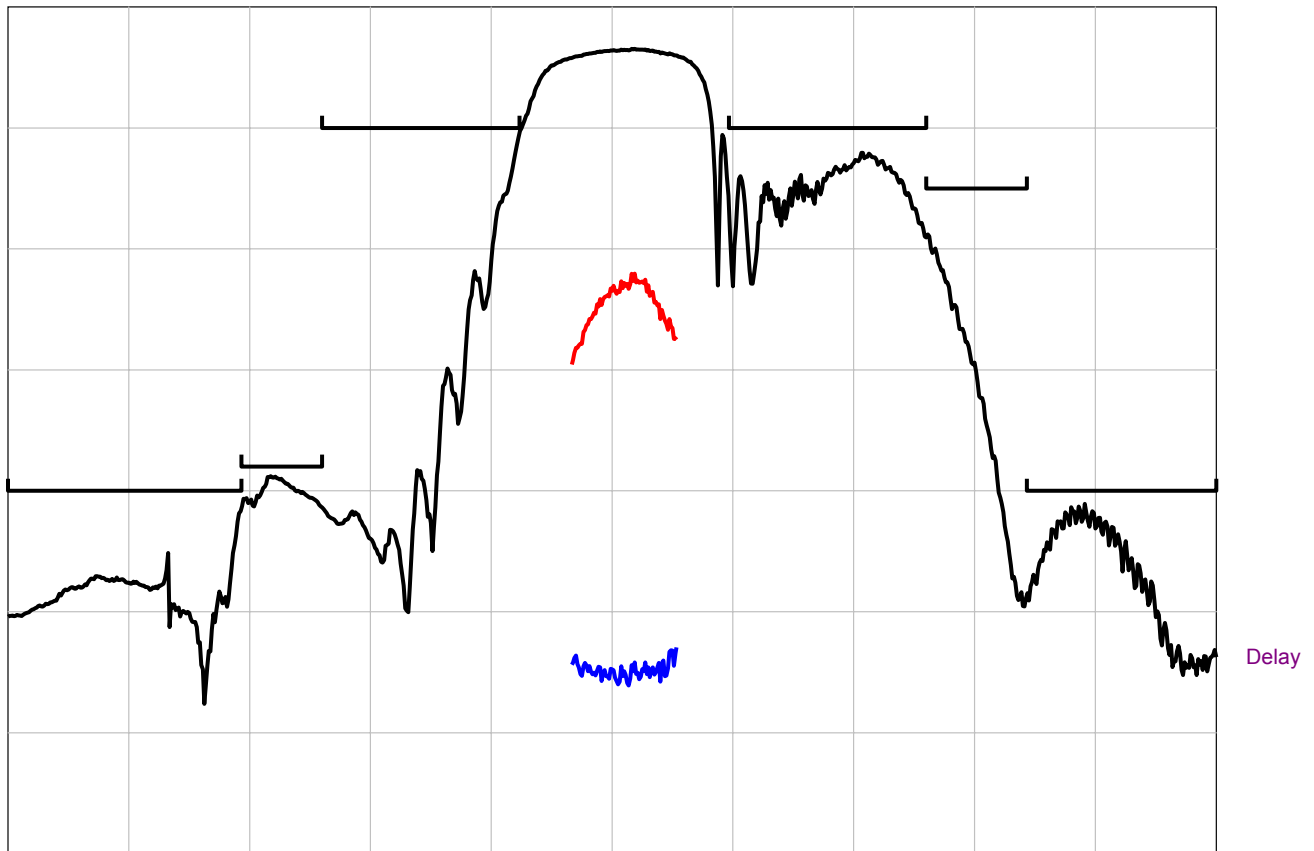


## DESCRIPTION

- 653 MHz SAW bandpass filter with 26 MHz bandwidth.
- 3.8 x 3.8 mm LCC package.
- RoHS compliant.

## TYPICAL PERFORMANCE



Horizontal: Frequency - Center : 650 MHz  
Span : 300 MHz  
Vertical: Magnitude : 10 dB/div  
Magnitude : 1 dB/div  
Group Delay : 20 ns/div

## SPECIFICATION

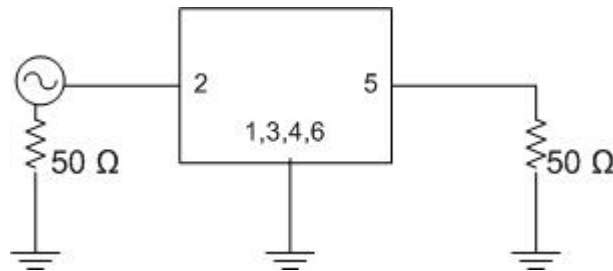
Parameter	Min	Typ	Max	Units
Nominal Center Frequency $F_c$	-	653	-	MHz
Passband	640	-	688	MHz
Maximum Insertion Loss over the Passband	-	4.2	4.5	dB
Absolute Delay	-	35	-	ns
Rejection (0.3 to 558 MHz) <sup>1</sup>	40	41	-	dB
Rejection (558 to 578 MHz) <sup>1</sup>	38	39	-	dB
Rejection (578 to 627 MHz) <sup>1</sup>	10	10.5	-	dB
Rejection (679 to 728 MHz) <sup>1</sup>	10	12	-	dB
Rejection (728 to 753 MHz) <sup>1</sup>	15	18	-	dB
Rejection (753 to 953 MHz) <sup>1</sup>	40	41	-	dB
Rejection (953 to 1103 MHz) <sup>1</sup>	40	42	-	dB
Amplitude Variation over the Passband	-	0.8	1.5	dB p-p
Group Delay Ripple in Passband	-	10	100	ns p-p
Source/Load Impedance	50			ohms
Temperature Coefficient of Frequency, $T_c$ <sup>2</sup>	-	-70	-	ppm/°C
Ambient Temperature ( $T_{ref}$ )	-	23	-	°C

- Notes:
1. Absolute level
  2. Typical shift of filter frequency response with temperature is  $\Delta f = (T - T_{ref}) * T_c * F_c$ .

## MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-45	85	°C
Operating Temperature Range	-20	55	°C
Input Power Level	-	10	dBm

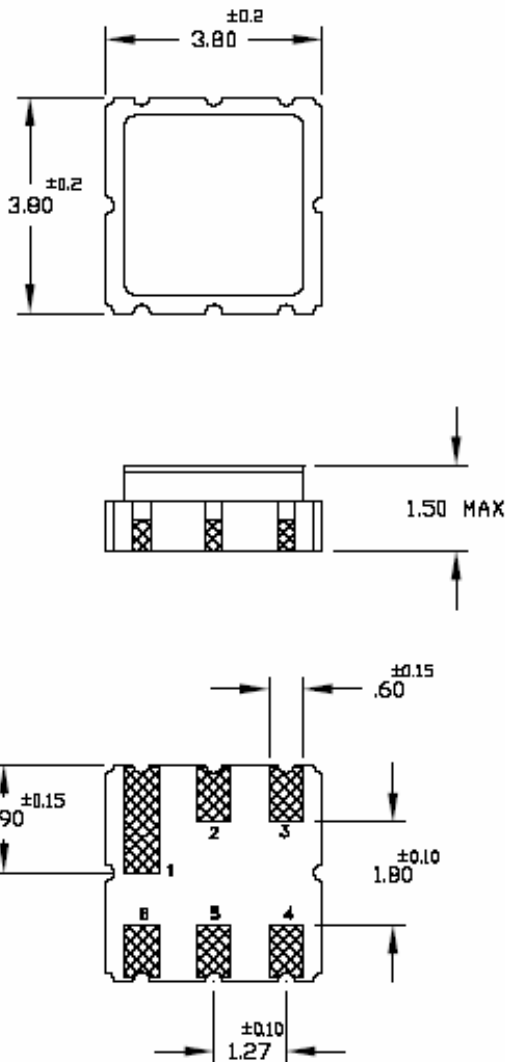
## MATCHING CIRCUIT



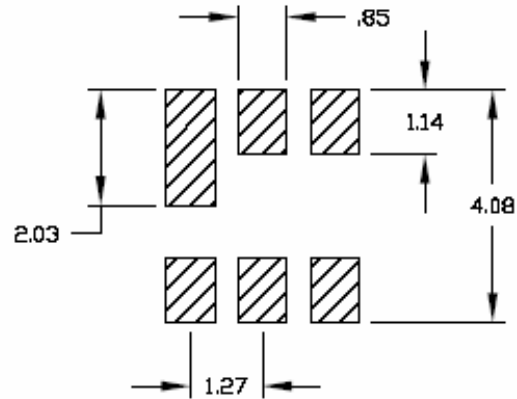
Notes:

- 50 ohm single ended operation.
- Matching components are not required.

**PACKAGE OUTLINE**



**SUGGESTED FOOTPRINT**



**Units:** mm

Tolerances are  $\pm 0.15$  mm except where indicated.

**Pad Configuration:**

Input: 2  
Output: 5  
Ground: 1, 3, 4, 6

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

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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