

# BMFS1 SERIES MONOLITHIC CRYSTAL FILTER

ULTRA MINIATURE PACKAGE 7.0 X 5.0 X 1.4mm



**Features:**

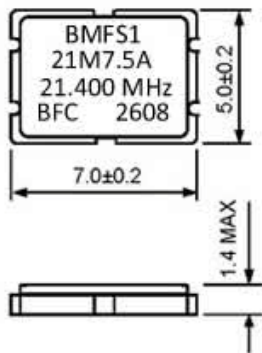
- 21.4 MHz to 218.55 MHz Frequency Range
- Ceramic Seam Sealed SMD Monolithic Crystal Filter
- Ultra Miniature S1 SMD Pkg. ( 7x5x1.4mm)
- Excellent Vibration and Shock Resistance
- 6 Pad SMD Industry Standard Footprint
- Excellent Solderability
- Withstands IR or Vapor Phase Soldering Reflow
- **RoHS Compliant**

**ELECTRICAL SPECIFICATIONS**

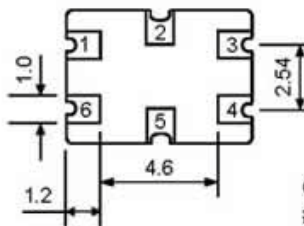
Model	Nominal Frequency (MHz)	Pass Bandwidth	Stop Bandwidth	Ripple (Db)	Insertion Loss (Db)	Guaranteed Attenuation	Terminating Impedance (kohms//pF)	Pkg. Style	# Poles
21M7.5A	21.400MHz	3dB ±3.75kHz	20dB ±18.0kHz	1.0dB	2.0dB	70dB -910fo±kHz	0.85//6.0	S1	2
21M15A	21.400MHz	3dB ±7.5kHz	18dB ±25.0kHz	1.0dB	2.0dB	70dB -910fo±kHz	1.5//2.5	S1	2
21M20A	21.400MHz	3dB ±10.0kHz	10dB ±30.0kHz	1.0dB	2.0dB	70dB -910fo±kHz	1.8//1.0	S1	2
21M30A	21.400MHz	3dB ±15.0kHz	15dB ±45.0kHz	1.0dB	2.0dB	70dB -910fo±kHz	2.0//1.5	S1	2
21M7.5A	21.700MHz	3dB ±3.75kHz	15dB ±12.5kHz	1.0dB	2.0dB	70dB -910fo±kHz	1.2//5.0	S1	2
21M15A	21.700MHz	3dB ±7.5kHz	15dB ±25.0kHz	1.0dB	2.0dB	70dB -910fo±kHz	1.5//1.0	S1	2
45M7.5A	45.000MHz	3dB ±37.5kHz	20dB ±25.0kHz	1.0dB	2.0dB	70dB -910fo±kHz	0.65//3.5	S1	2
45M12A	45.000MHz	3dB ±6.0kHz	15dB ±20.0kHz	1.0dB	2.0dB	70dB -910fo±kHz	0.65//5.0	S1	2
45M15A	45.000MHz	3dB ±7.5kHz	15dB ±25.0kHz	1.0dB	2.0dB	70dB -910fo±kHz	0.65//3.5	S1	2
45M30A	45.000MHz	3dB ±15kHz	15dB ±60.0kHz	1.0dB	2.0dB	70dB -910fo±kHz	1.2//3.0	S1	2
29M20A	29.000MHz	3dB ±10kHz	10dB ±25.0kHz	1.0dB	2.0dB	70dB -910fo±kHz	1.8//1.5	S1	2
49M20A	49.000MHz	3dB ±10kHz	15dB ±40.0kHz	1.0dB	2.5dB	70dB -910fo±kHz	1.1//0	S1	2
77M15A	77.550MHz	3dB ±7.5kHz	18dB ±28.0kHz	1.0dB	3.0dB	50dB -910fo±kHz	1.5//1	S1	2
100M20A	100.0MHz	3dB ±10kHz	10dB ±25.0kHz	1.0dB	2.0dB	70dB -1600fo±kHz	1.5//1.5	S1	2
105M14A	105.0MHz	3dB ±7kHz	20dB ±20.0kHz	1.0dB	6.0dB	40dB -4000fo±kHz	0.95//1.4	S1	2
109M30A	109.65MHz	3dB ±15kHz	22dB ±60.0kHz	0.5dB	2.5dB	65dB -910fo±kHz	2.0//1.3	S1	2
128M30A	128.55MHz	3dB ±15kHz	20dB ±53.0kHz	1.3dB	2.5dB	25dB 300-1Kfo±kHz	0.95//1.6	S1	2
						40dB -915fo±kHz			

**Part Numbering Guide**

SERIES/Package	Model #	Frequency	Tape And Reel Packaging
BMF S1	Choose from above	Specify Frequency	Blank = Bulk Packaging T = Tape and Reel Packaging
Example			
SERIES/Package	Model #	Frequency	Tape and Reel Packaging
BMF S1	128M30A	128.55MHz	T

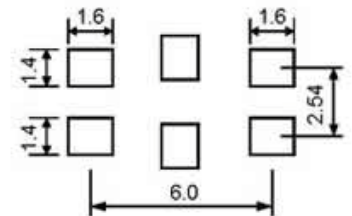


All dimensions are typical unless otherwise specified



- Connection #1 GND
- #2 GND
- #3 IN/OUT
- #4 GND
- #5 GND
- #6 IN/OUT

**Recommended Solder Pad Layout**



Dimensions in Millimeters