BSFSD-978M-QCAT – SAW Filter

bliley technologies

FEATURES

✓ Extended operating range (-40° to 85°C)
✓ Surface mount package
✓ ROHS Compliant

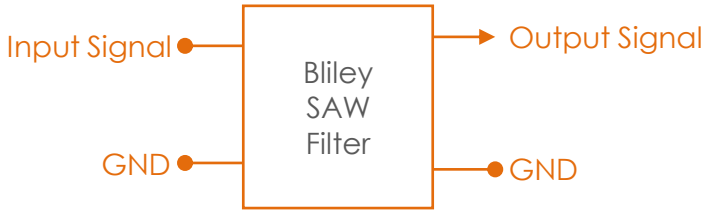
Surface Acoustical Wave Filter

#blileytakesyoufurther

Description

Bliley Surface Acoustic Wave (SAW) filters use Inter-Digital Transducers (IDTs) which enable highly miniaturized filters that can be used for Radio Frequency (RF) signal processing. Bliley rigorous Quality Control Standards provides the framework to provide consistent lot to lot product performance. Bliley SAW Filters are utilized in applications consisting of: Avionics, Instrumentation, Military, SATCOM and DATACOM.

Block Diagram



Part Number Configuration

BSFSD – 978M – Q C A T

Center Frequency	Bandwidth	Operating Temperature	Termination Impedance
978MHz	Q: 3dB	C: -40°C to +85°C	A: 50Ω

Bliley Technologies, Inc. • 2545 W. Grandview Blvd, Erie, PA 16506 • 1-814-838-3571 • bliley.com • info@bliley.com

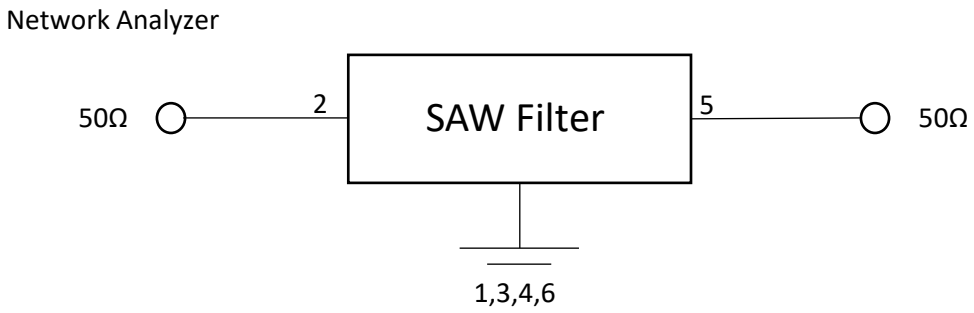
Performance Specifications

Parameter	Conditions	Values			Unit
General		MIN	TYP	MAX	
Center Frequency			978		MHz
Bandwidth	@ 3dB	±3			MHz
Amplitude Ripple	(975-981)MHz		0.2	1.0	dB(p-p)
Insertion Loss	(975-981)MHz		2	2.5	dB
Attenuation	Reference Level from 0 dB: 10-910 MHz	30	51		dB
Attenuation	Reference Level from 0 dB: 1035-1660 MHz	30	46		dB
Attenuation	Reference Level from 0 dB: 1660-2060 MHz	25	54		dB
Attenuation	Reference Level from 0 dB: 2060-3000 MHz	15	32		dB
Return Loss	(975-981)MHz	9	10.5		dB
Termination Impedance (Source and Load)	Zin = Zout	47.5	50	52.5	Ω
Input Power			10	15	dBm

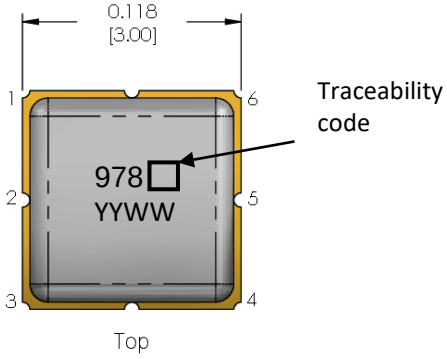
Environmental Compliance

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Operating Temp Range		-40		+85	°C
Storage Temp Range		-55		+85	°C
Shock	MIL-STD-202 Method 213 Test Condition A				
Vibration	MIL-STD-202 Method 214 Test Condition 1C				
Thermal Shock	MILD-STD-202 Method 107 Test Condition A-1				
Altitude	Above sea level	50,000			ft
Moisture Resistance	MIL-STD-202 Method 106 Test Condition C	90%		98%	RH

Measurement Circuit

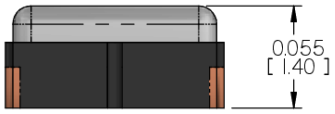


Physical Specifications

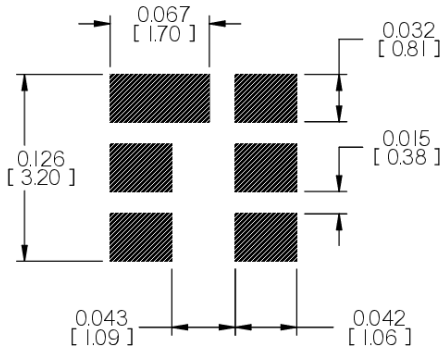


Top

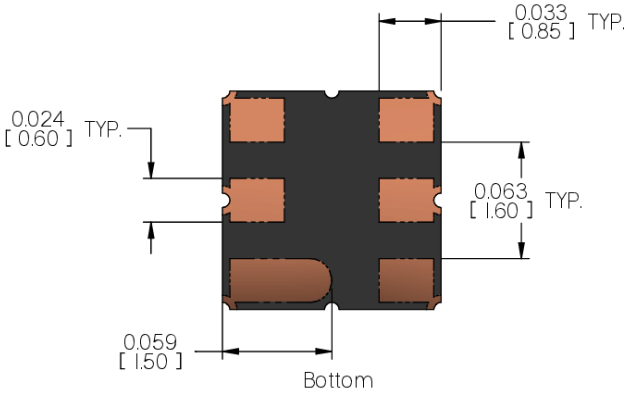
Iso Bottom



Side



Recommended Landing Pattern



Bottom

Pin Connections	
1	Ground
2	Input
3	Ground
4	Ground
5	Output
6	Ground

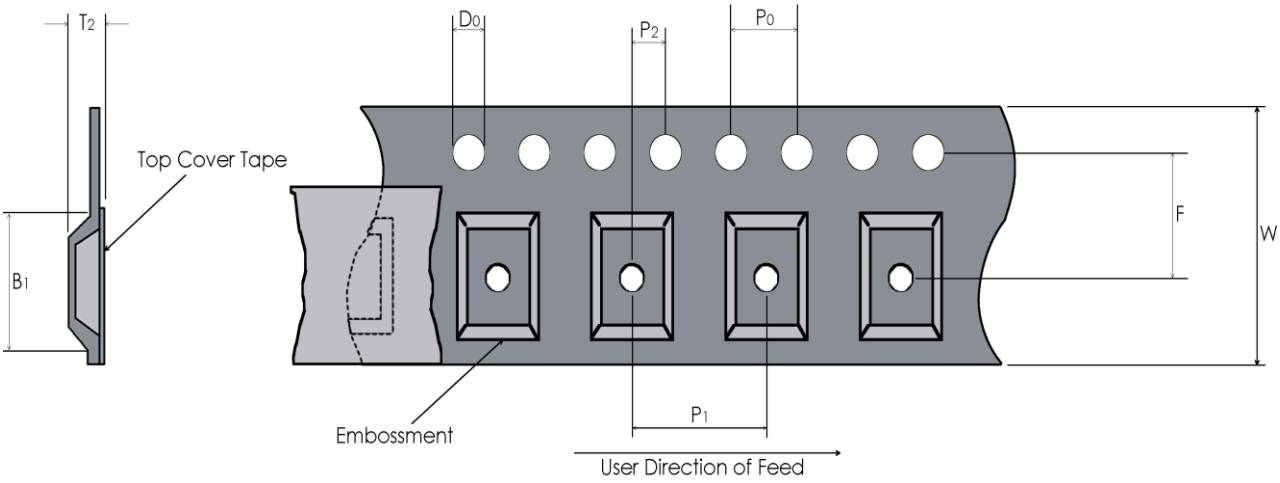
Tolerances (mm) .X = ±0.5, .XX = ±0.2 unless otherwise specified

RoHS COMPLIANT · Certified System Quality ISO 9001 SAI GLOBAL · REACH COMPLIANCE · AS 9100D CERTIFIED ISO 9001

Notes:

Tape and Reel

Embosed Carrier Dimensions (8mm, 12mm, 16mm, 24mm Tape Only)



Tape Dimensions (mm)								Reel Dimensions (mm)	
W	F	Do	Po	P1	P2	B1	T2	Outside Dia.	Parts / Reel
12	5.5	1.5	4	8	2	3.3	1.4	330	5000

Recommended Reflow Profile

Reflow Profile: in accordance to IPC/JEDEC J-STD-020 (Latest Revision)

Additional Notes:

- This part has been designed for pick and place reflow soldering
- This part may be reflowed once
- This part should not be reflowed in the inverted position

Packaging

Packaging: All packaging must conform to ESD Controls detailed in ANSI/ESD S20.20 (Latest Revision)