BSFSH-345M-SCAT – SAW Filter

bliley technologies

FEATURES

- ✓ Extended operating range (-40° to 85°C)
- ✓ SMD Construction
- ✓ Standard 3.8x3.8mm Package
- ✓ RoHS Compliant

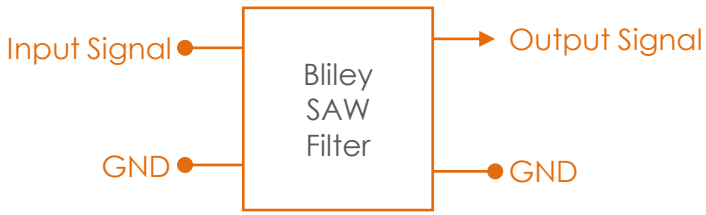
Surface Acoustic Wave Filter

#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

BSFSH – 345M – S C A T

Center Frequency	Bandwidth	Operating Temperature	Termination Impedance
345MHz	S: Special ± 400kHz	L: -40°C to +85°C	A: 50Ω

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Performance Specifications

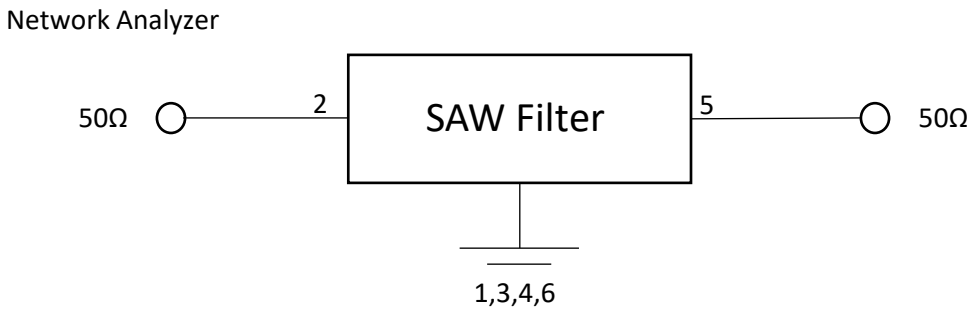
Parameter	Conditions	Values			Unit
General		MIN	TYP	MAX	
Center Frequency			345		MHz
Bandwidth	@TBD dB	±400			kHz
Amplitude Ripple	In passband		0.4	1.3	dB
Insertion Loss	Fo ± 30% of BW		2.3	3.3	dB
Attenuation	Reference Level from 0 dB: 10-320 MHz	50	60		dB
Attenuation	Reference Level from 0 dB: 320-325 MHz	50	55		dB
Attenuation	Reference Level from 0 dB: 325-333.5 MHz	35	40		dB
Attenuation	Reference Level from 0 dB: 333.5-335 MHz	50	55		dB
Attenuation	Reference Level from 0 dB: 335-337 MHz	40	45		dB
Attenuation	Reference Level from 0 dB: 354-362 MHz	25	30		dB
Attenuation	Reference Level from 0 dB: 362-370 MHz	38	42		dB
Attenuation	Reference Level from 0 dB: 370-700 MHz	50	55		dB
Attenuation	Reference Level from 0 dB: 700-1000 MHz	32	42		dB
Termination Impedance (Source and Load)	Zin = Zout	47.5	50	52.5	Ω
Input Power				10	dBm
Temperature Coefficient			-30		ppm/°C

Note: Electrical parameters valid over the full operating temperature

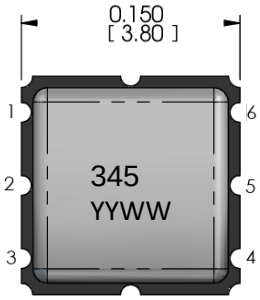
Environmental Compliance

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Operating Temp Range		-40		+85	°C
Storage Temp Range		-40		+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

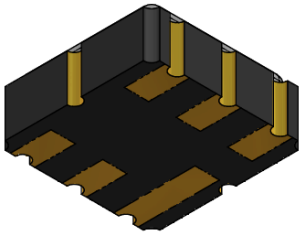
Measurement Circuit



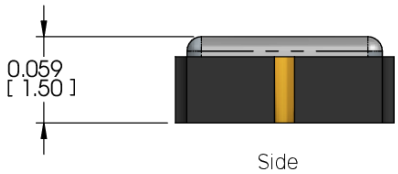
Physical Specifications



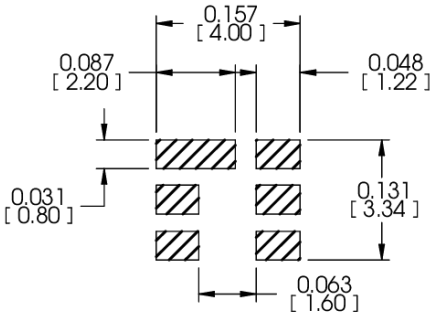
Top



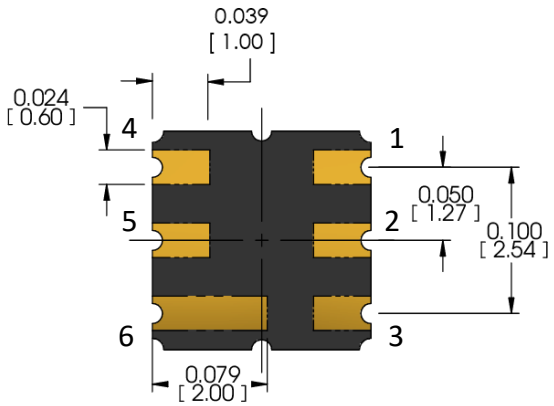
Iso Bottom



Side



Landing Pattern



Bottom

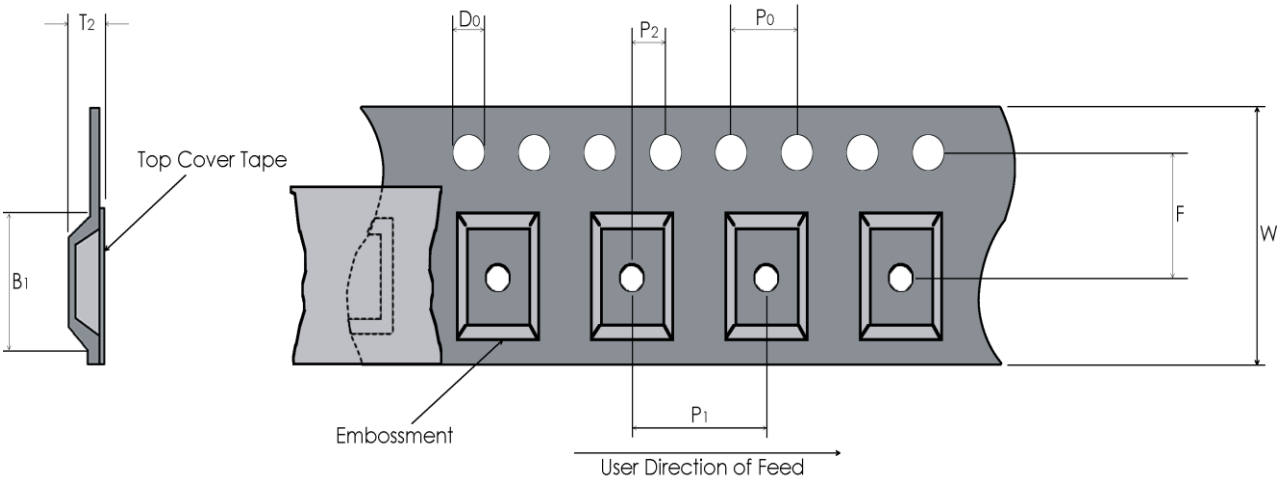
Tolerances (mm) .X = ±0.5, .XX = ±0.2 unless otherwise specified

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

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	4.25	1.3	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)