BSFSA-64M-BCAT – SAW Filter

bliley technologies

FEATURES

- ✓ Extended operating range (-40 to 85°C)
- ✓ SMD Construction
- ✓ Standard 13x6mm Package
- ✓ RoHS Compliant

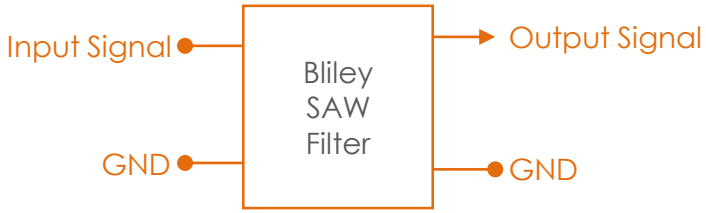
Surface Acoustic Wave Filter

#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

BSFSA – 64 M – B C A T

Center Frequency	Bandwidth	Operating Temperature	Termination Impedance
64 MHz	B: ±13 MHz	C: -40°C to 85°C	A: 50Ω

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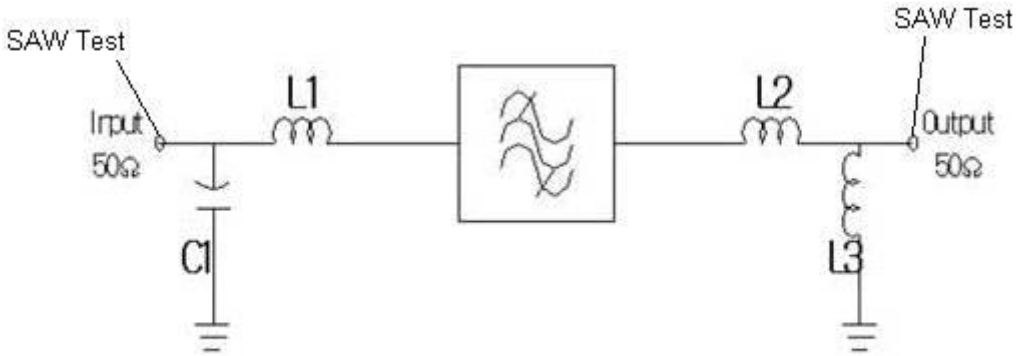
Performance Specifications

Parameter	Conditions	Values			Unit
General		MIN	TYP	MAX	
Frequency	Fo		64.000		MHz
Bandwidth	@-1dB	24.6	25.15		MHz
	@-3dB		26.0		MHz
	@-5dB		30.5	31.0	MHz
Passband Ripple	Fc ±12 MHz		0.5	1.0	dB
Insertion Loss	In passband		17	19	dB
Group Delay Variation	Fc ±14 MHz		80	120	nSec
Absolute Group Delay	Fc@+25°C		1.2		µSec
Attenuation	Reference Level from Min Insertion Loss: DC-44 MHz	38	43		dB
	Reference Level from Min Insertion Loss: 84 MHz-200 MHz	38	43		dB
Ultimate Rejection	<Fc -18MHz, >Fc +18MHz	40	45		dB
Termination Impedance (Source and Load)	Zin = Zout	47.5	50	52.5	Ω
Temperature Coefficient			-86		ppm/°C
Input Power				10	dBm
Maximum DC Voltage				10	Vdc

Environmental Compliance

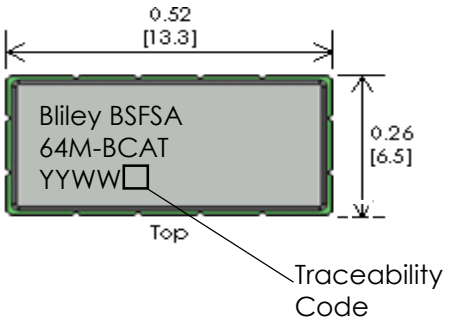
Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Operating Temp Range		-40		+85	°C
Storage Temp Range		-40		+85	°C
Shock	MIL-STD-202 Method 213 Test Condition A				
Vibration	MIL-STD-202 Method 214 Test Condition C				
Thermal Shock	MILD-STD-202 Method 107 Test Condition A-1				
Altitude	Mean Sea Level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

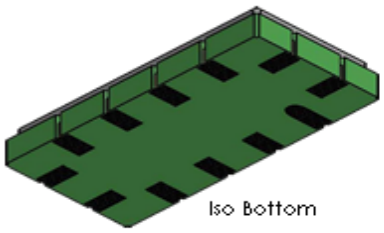
Matching Circuit

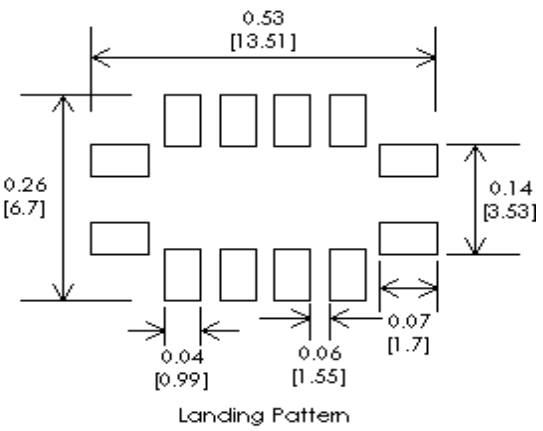


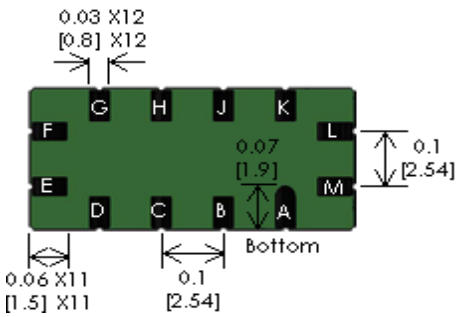
C1 = 30pF, L1 = 220nH, L2 = 56nH, L3 = 100nH

Physical Specifications









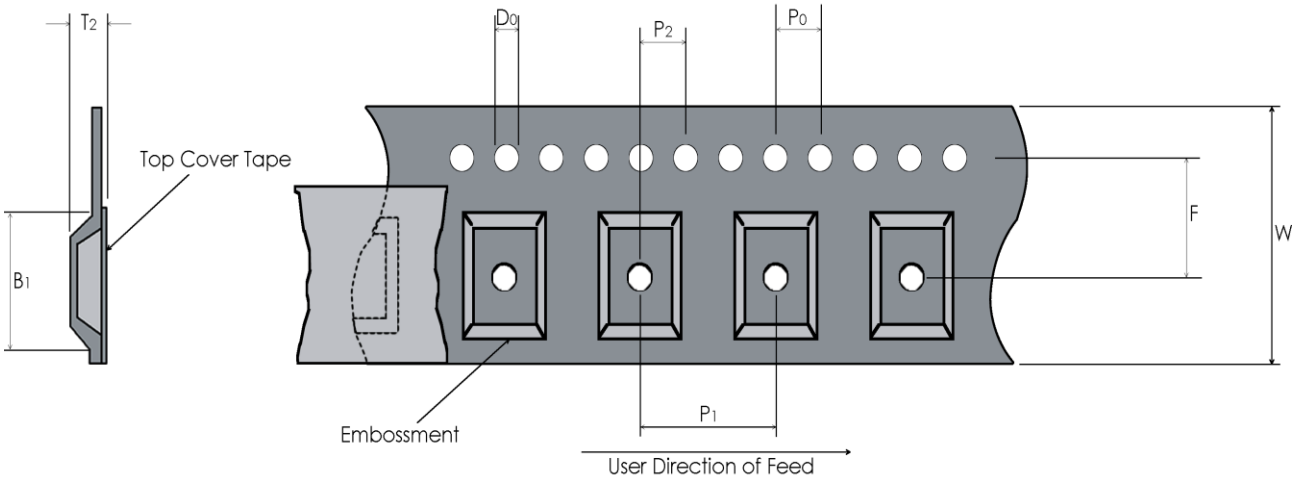
Pin Connections			
A	Ground	G	Ground
B	Ground	H	Ground
C	Ground	J	Ground
D	Ground	K	Ground
E	Output	L	Input
F	Output Ground	M	Input Ground

Tolerances (mm) .X = ± 0.5, .XX = ±0.25 unless otherwise specified

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
24	7.5	1.5	4	12	4	13.8	2.3	178	1000

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)