




SPECIFICATION SHEET

SPECIFICATION SHEET NO.	Q0221-SD315MF3052S01
DATE	Feb 21, 2023
REVISION	A0
DESCRIPTION	SMD SAW Filter 3030 Type L3.0*W3.0*H1.1mm 6 Pads SD Series 315.000MHz, Insertion Loss: 2.5 dB Typical. Band Wide @3dB Pass Band: +/-900KHz Max. Operating Temp. Range -40°C ~+85°C, Reflow Profile Condition 260 °C Max. Tape/Reel, 1000pcs/Reel RoHS/RoHS III compliant
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	TGS SF 315.0MA SD TLF
PART CODE	SD315MF3052S01

VENDOR APPROVE			
Issued/Checked/Approved			
DATE: Feb 21, 2023			

CUSTOMER APPROVE	
DATE:	

2/21/2023

SMD SAW FILTER 3030 TYPE SD SERIES

MAIN FEATURE

- SMD SAW Filter 3030 Type 6 Pads
- Dimension L3.0*W3.0*H1.1mm
- Low-loss, Compact, And Economical SAW
- Cross more competitors part
- RoHS/RoHS III compliant



APPLICATION

- Bluetooth, wireless communication set
- Communication Electronics

RFQ

[Request For Quotation](#)

PART CODE GUIDE

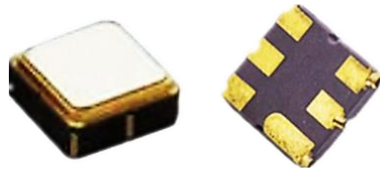
SD	315M	F	3052	S	01
1	2	3	4	5	6

- 1) SD: SMD SAW Filter 3030 Type L3.0*W3.0*H1.1mm
- 2) 315M: Frequency range code for 315.000MHz
- 3) F: Product code, F: SAW Filter; R: SAW Resonator
- 4) 3052: Special Code (A~Z or 1~9) for custom specification
- 5) S: SMD type, Package Tape/Reel,
- 6) 01: Internal code (A~Z or 1~9) or Blank

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DIMENSION (Unit: mm, Tol. +/-0.15mm)

Image for reference

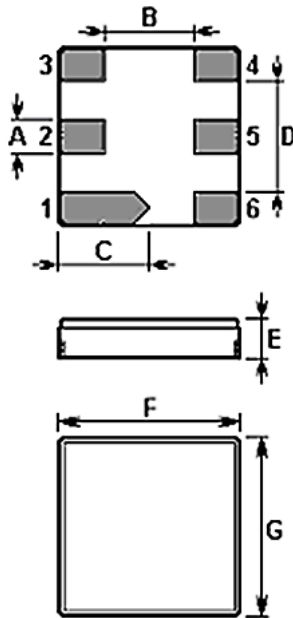


Marking 1
Standard

or

Marking 2
XXF
3052

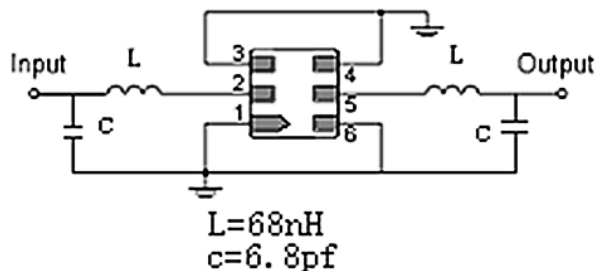
SD series
L3.0*W3.0*H1.1mm



Code	Dimension
A	0.6
B	1.5
C	1.5
D	1.8
E	1.1
F	3.0
G	3.0

Pin	Configuration
2	Input/Output
5	Output/input
1,3,4,6	Case Ground

Test Circuit

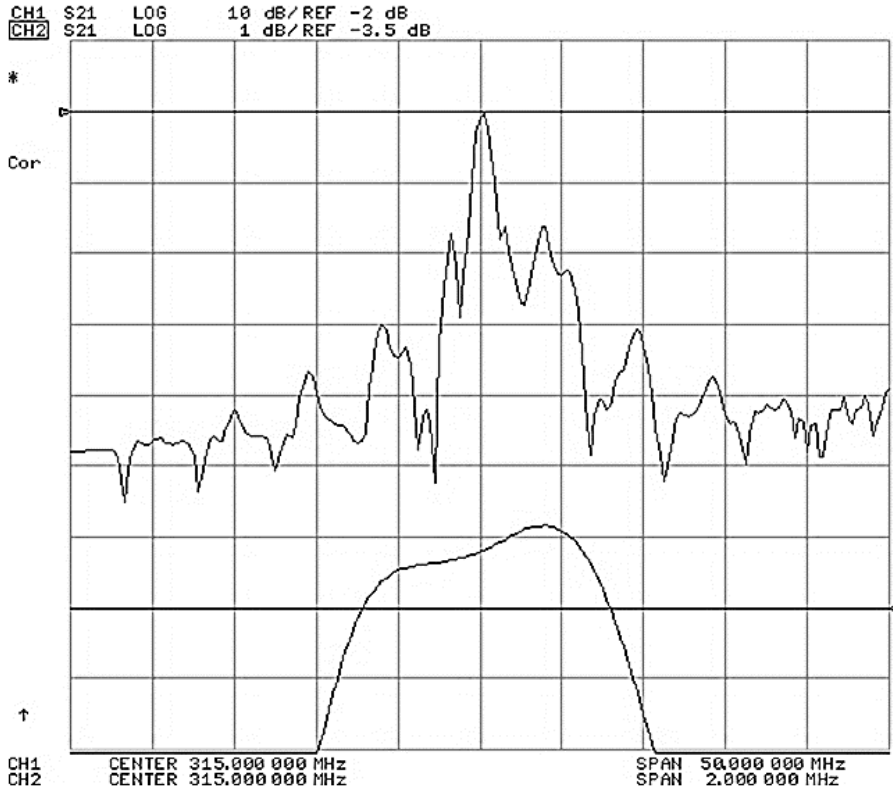


SMD SAW FILTER 3030 TYPE SD SERIES
ELECTRICAL PARAMETERS

Parameter		Part No. Symbol	Units	Value				
				Min.	Typical	Max.		
Original Manufacturer		TGS	TGS Crystals					
Product Name		SF	SAW Filter					
Center Frequency (fc) (center frequency between 3dB points)		315.0M	MHz	315.0000				
3dB Pass band (BW 3)		A	kHz	600	800	900		
Insertion Loss (IL)			dB	-	2.5	3.8		
Operation Temperature (T A)			°C	-40		+85		
Storage Temperature (T stg)			°C	-40		+85		
DC Voltage (V DC)			V		12			
Input Power Level (P IN)			dBm		10			
Rejection			dB		at f _c -21.4 MHz (Image)	40	45	--
					at f _c -10.7 MHz (LO)	30	40	--
					Ultimate	--	50	--
Temperature			°C	MHz	Turnover Temperature (T O)	0		30
		Turnover Frequency (f O)				f _c		
		Frequency Temperature Coefficient (FTC)			ppm/°C		0.032	
		Frequency Aging Absolute Value during the First Year fA			ppm/Year			±10
Hold Type		SD		3030 Type L3.0*W3.0*H1.1mm				
Other	Package	T		Tape/Reel				
	RoHS Status	LF		RoHS III compliant				
	Add Value			Blank: N/A				
	Internal Control Code			Blank: N/A				

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TYPICAL FREQUENCY RESPONSE

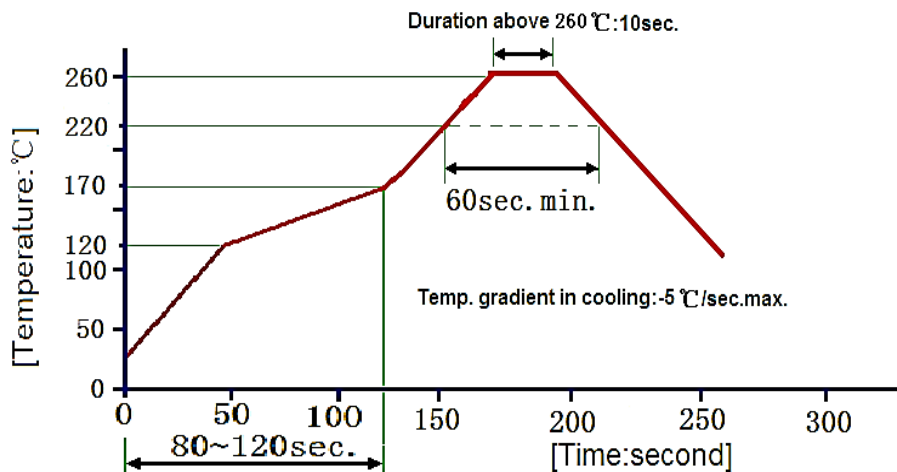


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RELIABILITY

Test Items	Test Method And Conditions	Requirement
Temperature Storage	(1) Temperature: 85°C±2°C , Duration: 250h , Recovery time: 2h±0.5h	It shall remain electrical performance after tests
	(2) Temperature: -55°C±3°C , Duration: 250h ,Recovery time: 2h±0.5h	
Humidity Test	Conditions: 60°C±2°C , 90~95% RH Duration: 250h	
Thermal Shock	Heat cycle conditions: TA=-55°C±3°C, TB=85°C±2°C, t1=t2=30min, Switch time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.	
Vibration Fatigue	Frequency of vibration: 10~55Hz Amplitude:1.5mm Directions: X,Y and Z Duration: 2h	
Drop Test	Cycle time: 10 times Height: 1.0m	
Solderability	Temperature: 245°C±5°C Duration: 3.0s--5.0s Depth: DIP--2/3 , SMD--1/5	
Resistance to Soldering Heat	(1)Thickness of PCB:1mm , Solder condition: 260°C±5°C , Duration: 10±1s (2)Temperature of Soldering Iron: 350°C±10°C , Duration: 3~4s , Recovery time : 2 ± 0.5h	

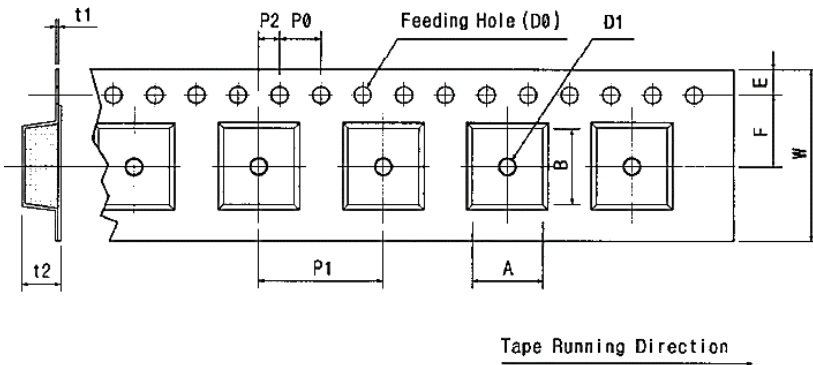
SUGGESTED REFLOW PROFILE (For Reference Only)



Reflow cycles:3 cycles max.

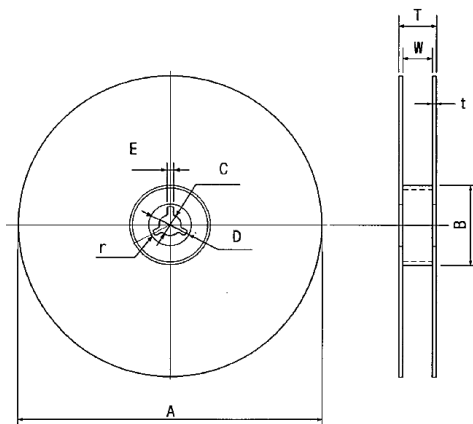
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TAPE DIMENSION (Unit: mm, 1000pcs/Reel)



Code	Dimension
W	12.0+/-0.30
F	5.50+/-0.10
E	1.75+/-0.10
P 0	4.00+/-0.10
P 1	8.00+/-0.10
P 2	2.00+/-0.10
D 0	Ø1.5+/-0.10
D 1	Ø1.5+/-0.25
t 1	0.30+/-0.01
t 2	1.90+/-0.05
A	3.25+/-0.10
B	3.30+/-0.10

REEL DIMENSION (Unit: mm)



Code	Dimension
A	Ø330+/-1.0
B	Ø100+/-0.5
C	Ø13.0+/-0.5
D	Ø21+/-0.8
E	2.00+/-0.5
W	13.0+/-0.50
t	3.00 Max.
r	1.00 Max.

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CAUTION

1. The frequency f_c is defined as the midpoint between the 3dB frequencies.
2. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a 50Ω test system with VSWR≤1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency, f_c . Note that insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality.
3. Unless noted otherwise, specifications apply over the entire specified operating temperature range.
4. Frequency aging is the change in f_c with time and is specified at +65° C or less. Aging may exceed the specification for prolonged temperatures above +65° C. Typically, aging is greatest the first year after manufacture, decreasing in subsequent years.
5. Turnover temperature, T_o , is the temperature of maximum (or turnover) frequency, f_o . The nominal frequency at any case temperature, T_c , may be calculated from: $f = f_o [1 - FTC (T_o - T_c)^2]$.
6. The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
7. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
8. Our liability is only assumed for the Surface Acoustic Wave (SAW) component(s) perse, not for applications, processes and circuits implemented within components or assemblies.
9. For questions on technology, prices and delivery, please contact our sales offices or e-mail: sales@NextGenComponent.com.

DISCLAIMER

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2/21/2023