Datasheet of SAW Device

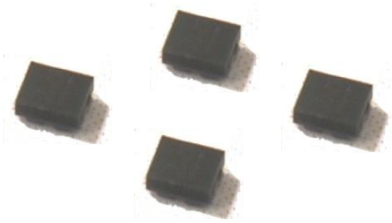
SAW Dual Filter

for B34/B39 / 1in1out Unbalanced /1511

Murata PN: SAWFD1G90KZ0F0A

■ Feature

- Input and Output combined Type
-
-



Note : Murata SAW Component is applicable for Cellular /Cordless phone (Terminal) relevant market only.
Please also read caution at the end of this document.

SAWFD1G90KZ0F0A (B34/B39 / 1in1out Unbalanced / 1511)

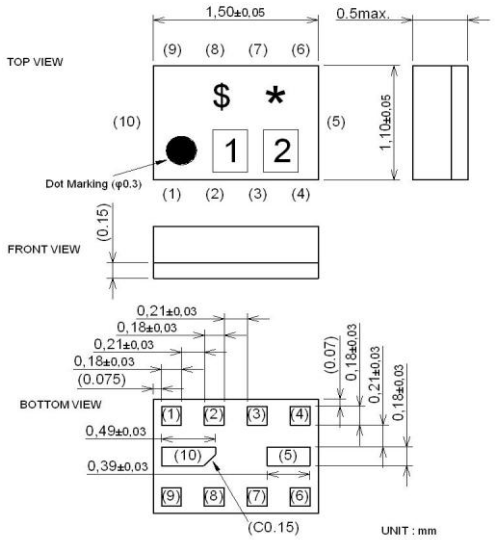
Revision No.	Date	Description
SAWFD1G90KZ0F0A_rev. A	Jan-11-2013	■ Initial Release
SAWFD1G90KZ0F0A_rev. B	Jul-02-2013	■ Updated Typical value

- Operating temperature : -30 to +85 deg.C
- Storage temperature : -40 to +85 deg.C
- Input Power : +13 dBm 2000 h
- D.C. Volatage between the terminals : 3V (25+/-2 deg.C)
- Minimum Resistance betweem the terminals : 10M ohm
- RoHS compliance : Yes

Package Dimensions & Recommended Land Pattern

unit: mm

Dimensions



Marking : Laser Printing

* : Month code(Refer to the table A)

$: Date code(Refer to the table B)

1 : X

2 : C

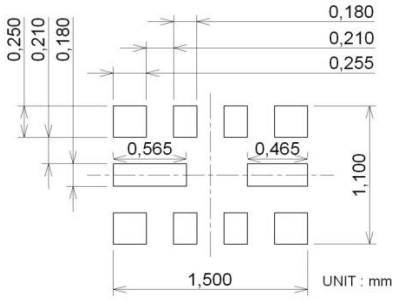
Terminal Number

(1) :Unbalance Port-Lch-Hch

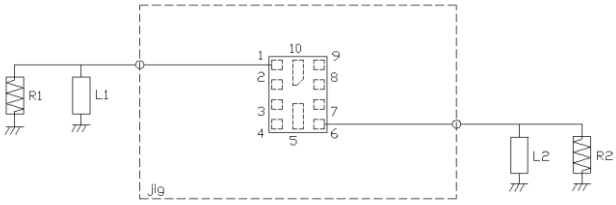
(9) :Unbalance Port-Lch-Hch

Others : GND.

Land Pattern



Measurement Circuit (Top View)



R1 : 50 ohm L1 : 4.3 nH(Ideal inductor)

R2 : 50 ohm L2 : 3.9 nH(Ideal inductor)

SAWFD1G90KZ0F0A (B34/B39 / 1in1out Unbalanced / 1511)

Electrical Characteristic < Low Freq. Filter >

Matching Impedance (nominal)

- :Unbalance Port-Lch-Hch : 50 ohm // 4.3 nH(Ideal inductor)
- :Unbalance Port-Lch-Hch : 50 ohm // 3.9 nH(Ideal inductor)

Low Freq. Filter				Characteristics (-30 to +85 deg.C)			Unit	Note
				min.	typ.	max.		
Center Frequency					1900		MHz	
Insertion Loss	1880.	to	1920. MHz		2.2	2.8	dB	
	1880.	to	1920. MHz		2.2	2.5	dB	+23 to +27deg.C
Ripple Deviation	1880.	to	1920. MHz		0.6	1.5	dB	
	1880.	to	1920. MHz		0.6	1.1	dB	+23 to +27deg.C
VSWR	1880.	to	1920. MHz		1.3	2.0		
Absolute Attenuation	10.	to	1000. MHz	33	41		dB	
	1000.	to	1500. MHz	24	30		dB	
	1500.	to	1795. MHz	24	29		dB	
	1795.	to	1820. MHz	15	40		dB	
	1820.	to	1840. MHz	10	48		dB	
	1980.	to	2005. MHz	1	2		dB	
	2005.	to	2110. MHz	1	2		dB	
	2110.	to	2500. MHz	25	31		dB	
	2500.	to	3000. MHz	28	33		dB	
	3000.	to	4500. MHz	32	38		dB	
	4500.	to	6000. MHz	30	42		dB	

* Typical value at 25±2deg.C

SAWFD1G90KZ0F0A (B34/B39 / 1in1out Unbalanced / 1511)

Electrical Characteristic < High Freq. Filter >

Matching Impedance (nominal)

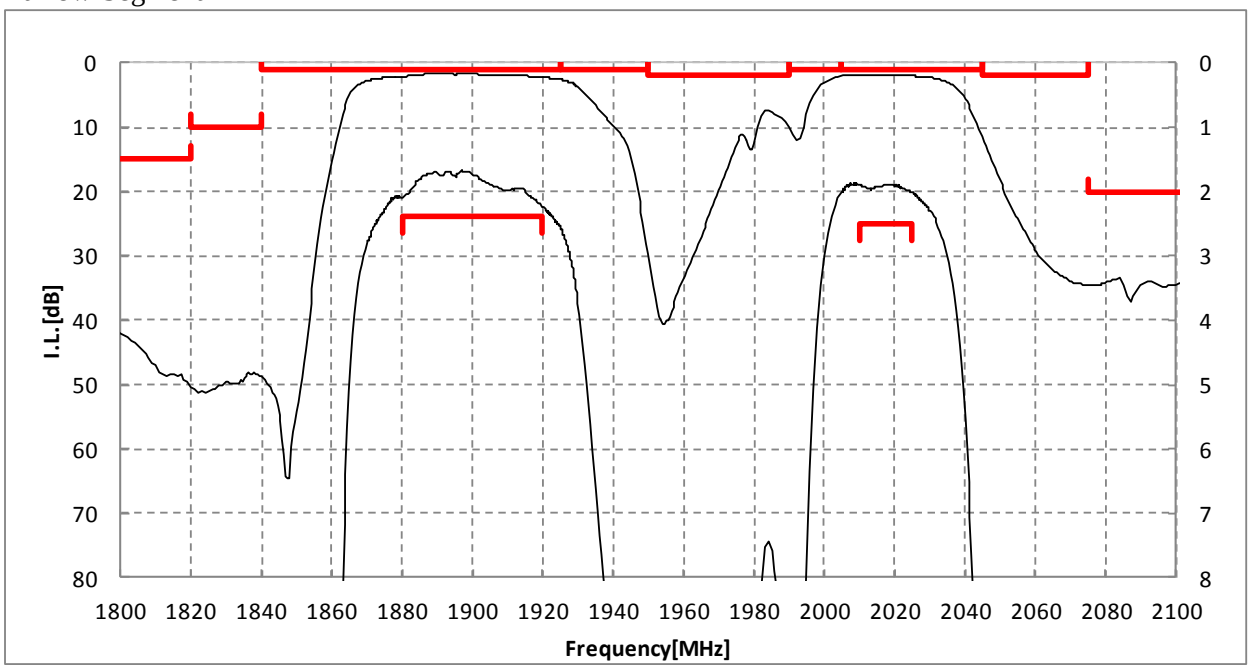
- :Unbalance Port-Lch-Hch : 50 ohm // 4.3 nH(Ideal inductor)
- :Unbalance Port-Lch-Hch : 50 ohm // 3.9 nH(Ideal inductor)

High Freq. Filter						Characteristics (-30 to +85 deg.C)			Unit	Note
						min.	typ.	max.		
Center Frequency							2017.5		MHz	
Insertion Loss	2010.	to	2025.	MHz			2.0	2.6	dB	
	2010.	to	2025.	MHz			2.0	2.5	dB	+23 to +27deg.C
Ripple Deviation	2010.	to	2025.	MHz			0.1	1.0	dB	
	2010.	to	2025.	MHz			0.1	0.8	dB	+23 to +27deg.C
VSWR	2010.	to	2025.	MHz			1.3	2.0		
Absolute Attenuation	10.	to	1013.	MHz		35	40		dB	
	1013.	to	1925.	MHz		1.0	1.7		dB	
	1925.	to	1950.	MHz		1.0	2.6		dB	
	1950.	to	1990.	MHz		2.0	7.4		dB	
	2045.	to	2075.	MHz		2	12		dB	
	2075.	to	2110.	MHz		20	33		dB	
	2110.	to	2170.	MHz		27	33		dB	
	2170.	to	2500.	MHz		25	31		dB	
	2500.	to	4000.	MHz		28	33		dB	
	4000.	to	6000.	MHz		35	42		dB	

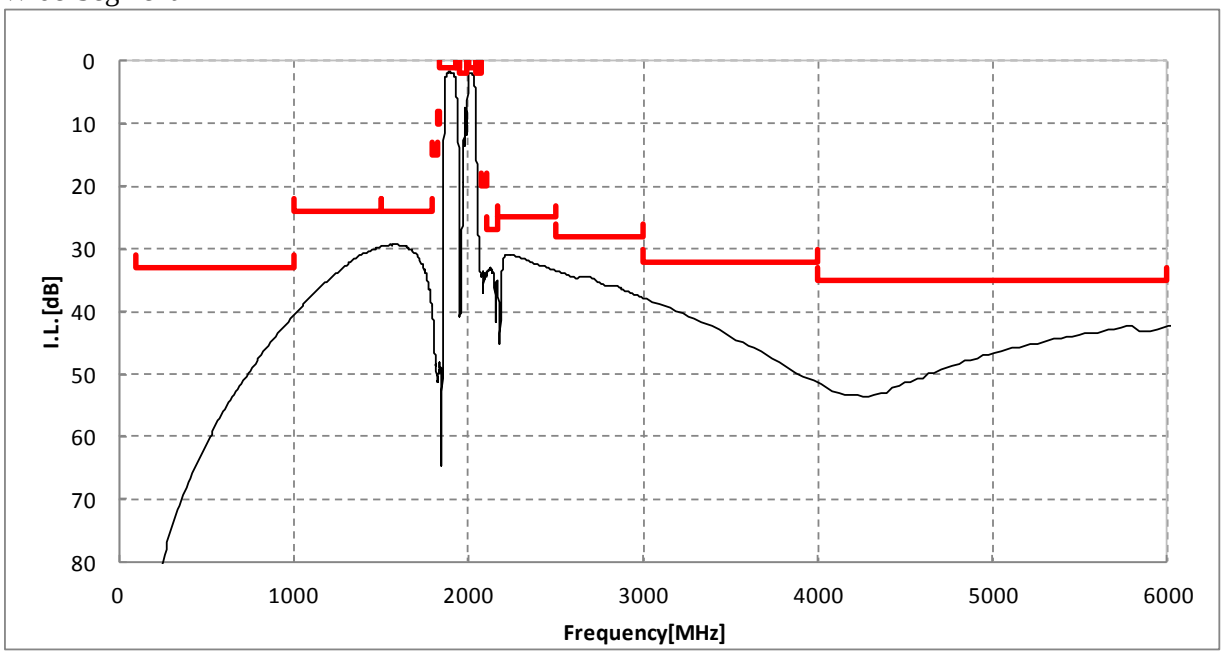
* Typical value at 25±2deg.C

Electrical Characteristic

Narrow-Segment

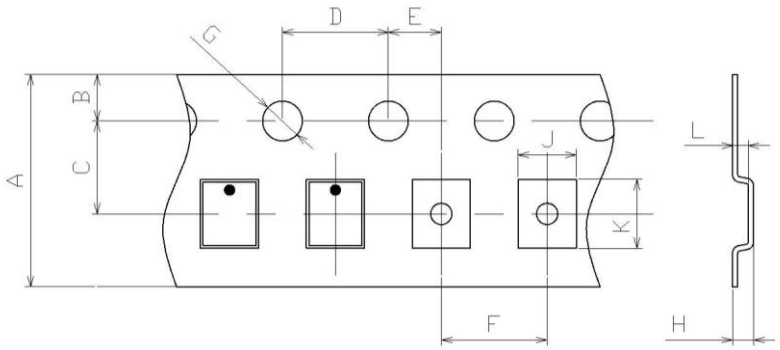


Wide-Segment



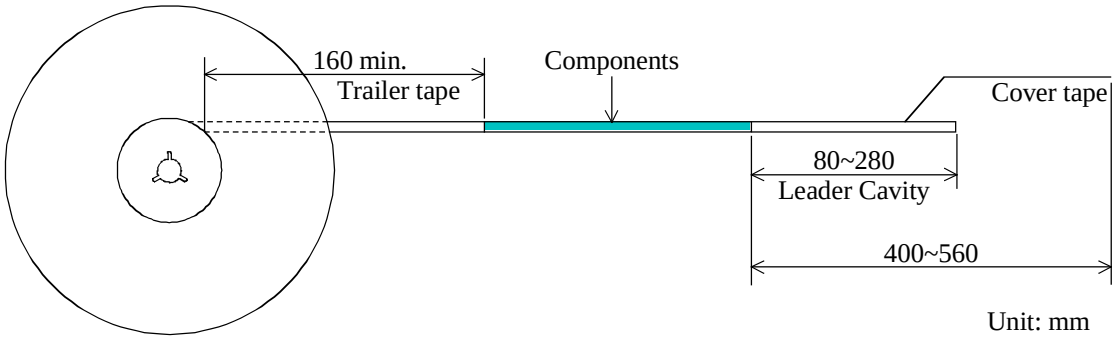
Dimensions of Tape & Reel unit: mm

Carrier Tape



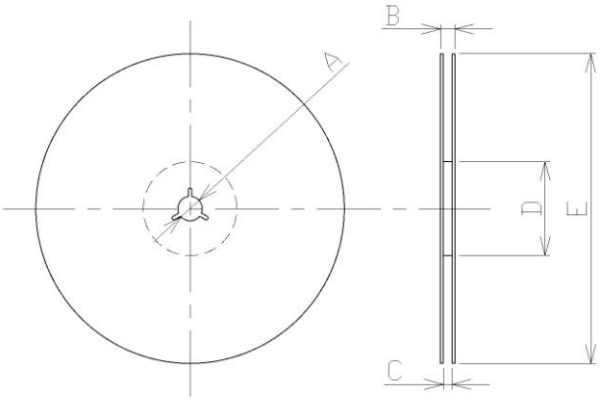
A:	8.0	J:	1.3
B:	1.75	K:	1.7
C:	3.50	L:	0.60
D:	4.0		
E:	2.00		
F:	4.0		
G:	φ1.5		
H:	0.90		

Tape



Unit: mm

Reel



φ178Reel		φ330Reel	
A:	φ13.0	A:	φ13.0
B:	13.5max	B:	15.5max
C:	9.0	C:	9.5
D:	φ60	D:	φ100
E:	φ178	E:	φ330

SAWFD1G90KZ0F0AR00… 10000pcs (φ330)
SAWFD1G90KZ0F0AR15… 5000pcs (φ178)
SAWFD1G90KZ0F0AR1S… sample Order (φ178)

Marking Code

Table A: Month Code

2009 2013 2017	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	A	B	C	D	E	F	G	H	J	K	L	M
2010 2014 2018	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	N	P	Q	R	S	T	U	V	W	X	Y	Z
2011 2015 2019	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	a	b	c̄	d	e	f	g	h	j	k	l	m
2012 2016 2020	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	n	p	q	r	s	t	u	v	w	x	y	z

Table B: Date Code

date	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
code	A	B	C	D	E	F	G	H	J	K
date	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th
code	L	M	N	P	Q	R	S	T	U	V
date	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
code	W	X	Y	Z	a	b	c̄	d	e	f	g

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Please note that the only warranty that we provide regarding the products is its conformance to the specifications provided herein. Accordingly, we shall not be responsible for any defects in products or equipment incorporating such products, which are caused under the conditions other than those specified in this specification.

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The product shall not be used in any application listed below which requires especially high reliability for the prevention of such defect as may directly cause damage to the third party's life, body or property. You acknowledge and agree that, if you use our products in such applications, we will not be responsible for any failure to meet such requirements.

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- Aerospace equipment
- Undersea equipment.
- Power plant control equipment
- Medical equipment.
- Transportation equipment (vehicles, trains, ships, elevator, etc.).
- Traffic signal equipment.
- Disaster prevention / crime prevention equipment.
- Burning / explosion control equipment
- Application of similar complexity and/ or reliability requirements to the applications listed in the above.

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Moreover, you must comply with "foreign exchange and foreign trade law", the "U.S. export administration regulations", etc.

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