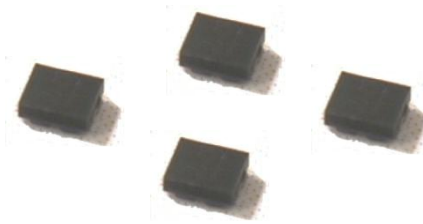




Data Sheet of SAW Components



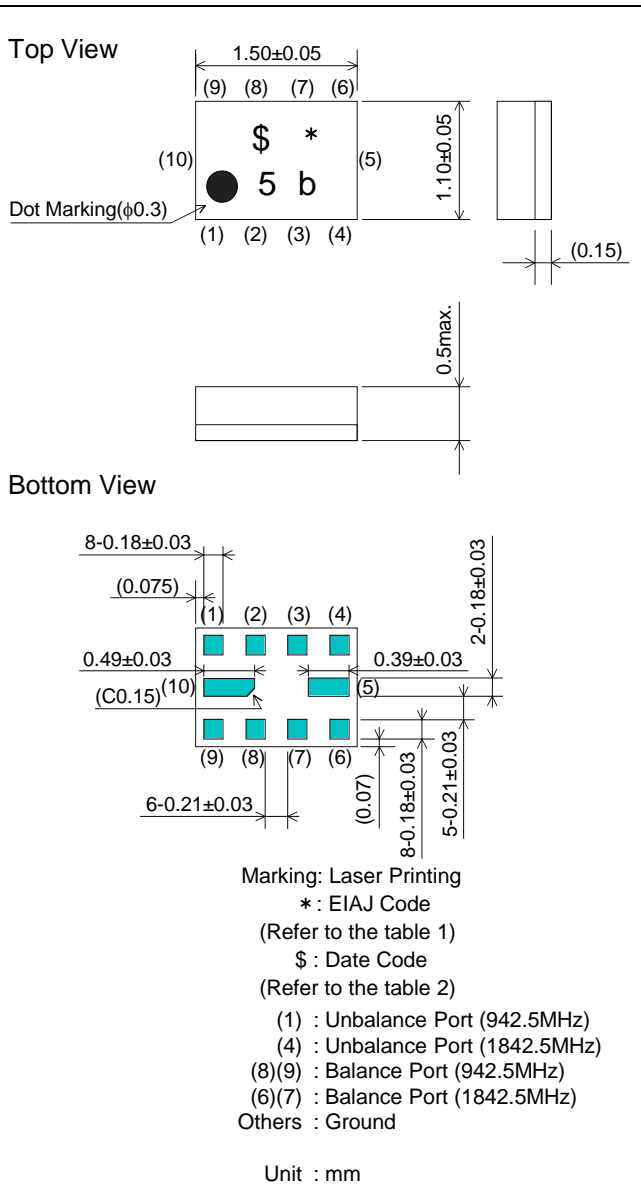
Note : Murata SAW Component is applicable for Cellular /Cordless phone (Terminal) relevant market only.

Please also read caution at the end of this document.

SAW FILTER FOR GSM900/1800

Murata part number : SAWFD942MCM0F0A ($f_c=942.5\text{MHz}$)

Package Dimensions



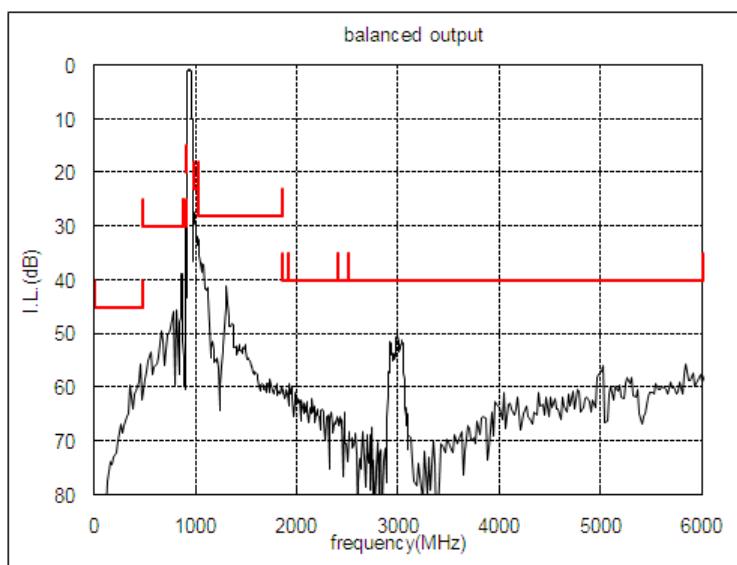
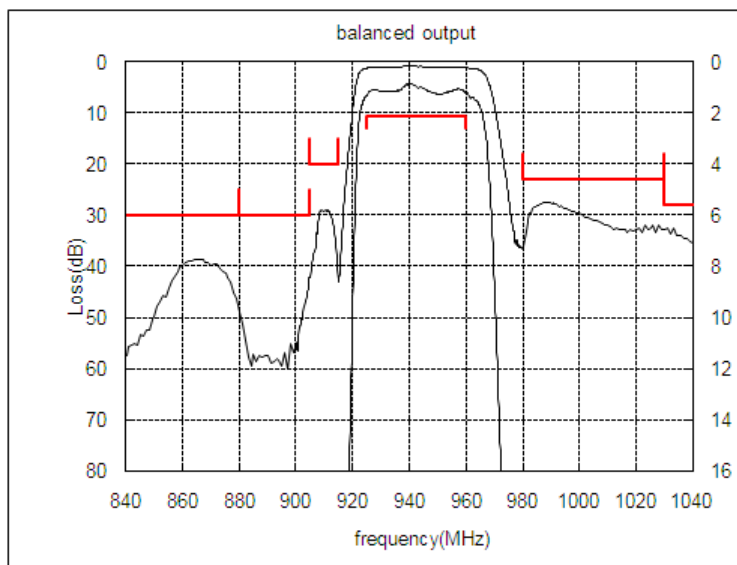
Specification

Item	Specification		
	-30 to 85°C	25±2°C	typ.
Nominal Center Frequency(f_c)	942.5MHz		
Insertion Loss (925 to 960MHz)	2.1 dB max.	1.7 dB max.	1.3 dB
Absolute Attenuation			
1) 0.1 to 480 MHz	45 dB min.	45 dB min.	60 dB
2) 480 to 880 MHz	30 dB min.	30 dB min.	42 dB
3) 880 to 905 MHz	30 dB min.	30 dB min.	45 dB
4) 905 to 915 MHz	20 dB min.	23 dB min.	33 dB
5) 980 to 1030 MHz	23 dB min.	23 dB min.	27 dB
6) 1030 to 1850 MHz	28 dB min.	28 dB min.	32 dB
7) 1850 to 1920 MHz	40 dB min.	40 dB min.	66 dB
8) 1920 to 2400 MHz	40 dB min.	40 dB min.	59 dB
9) 2400 to 2500 MHz	40 dB min.	40 dB min.	59 dB
10) 2500 to 6000 MHz	40 dB min.	40 dB min.	47 dB
Ripple Deviation (925 to 960MHz)	1.5 dB max.	1.2 dB max.	0.5 dB
VSWR (925 to 960MHz)	2.1 max.	2.0 max.	1.7
Amplitude Balance (925 to 960MHz)	±1.0dB max.	±1.0dB max.	+0.5dB
Phase Balance (925 to 960MHz)	180±10deg. max.	180±10deg. max.	180+3deg.
Unbalance Port Matching Impedance (nominal)	50Ω		
Balance Port Matching Impedance (nominal)	150Ω//56nH		
Input Signal Level	31.6mW (+15dBm), 2000 hours		

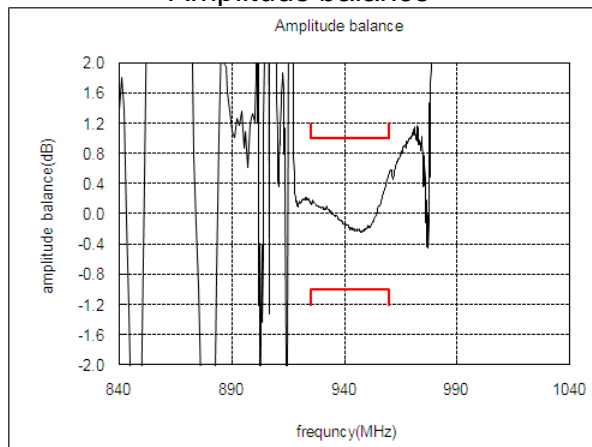
SAW FILTER FOR GSM900/1800

Murata part number : SAWFD942MCM0F0A (fc=942.5MHz)

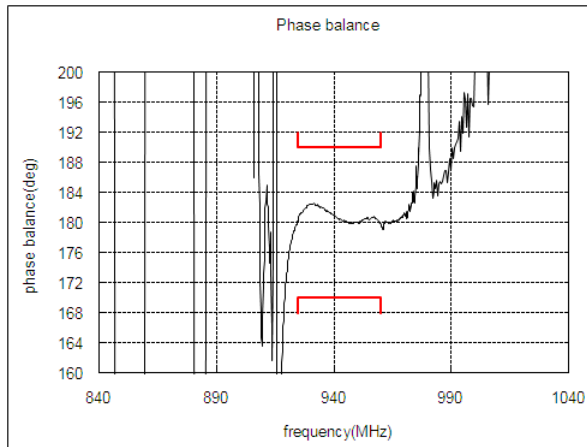
Frequency Performance



Amplitude balance



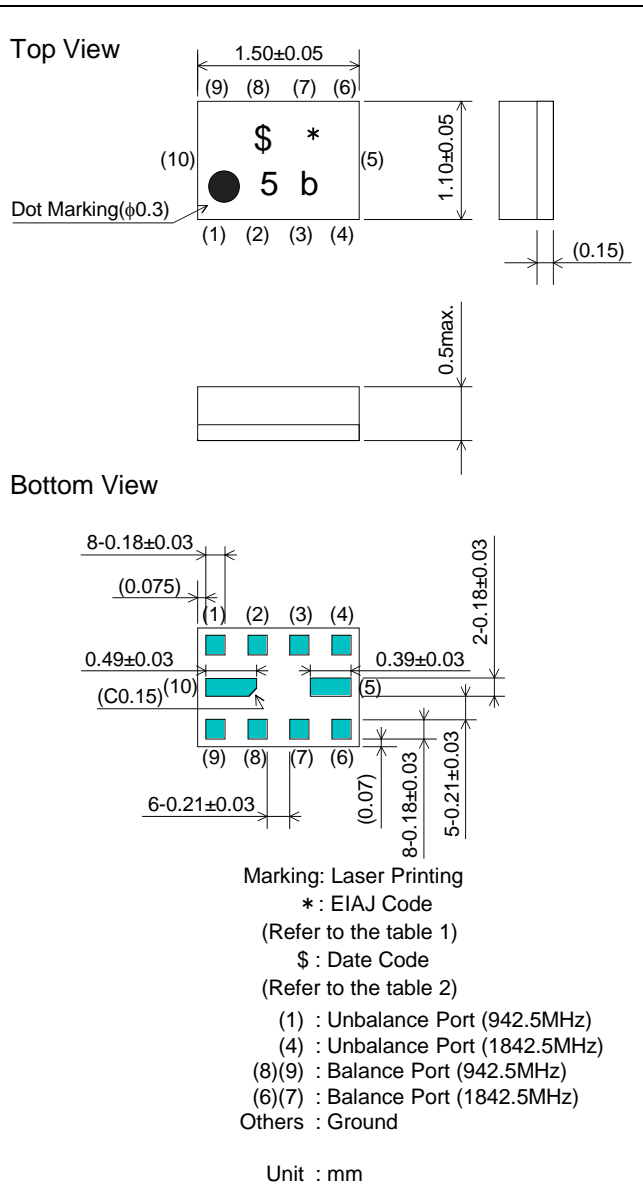
Phase balance



SAW FILTER FOR GSM900/1800

Murata part number : SAWFD942MCM0F0A (fc=1842.5MHz)

Package Dimensions



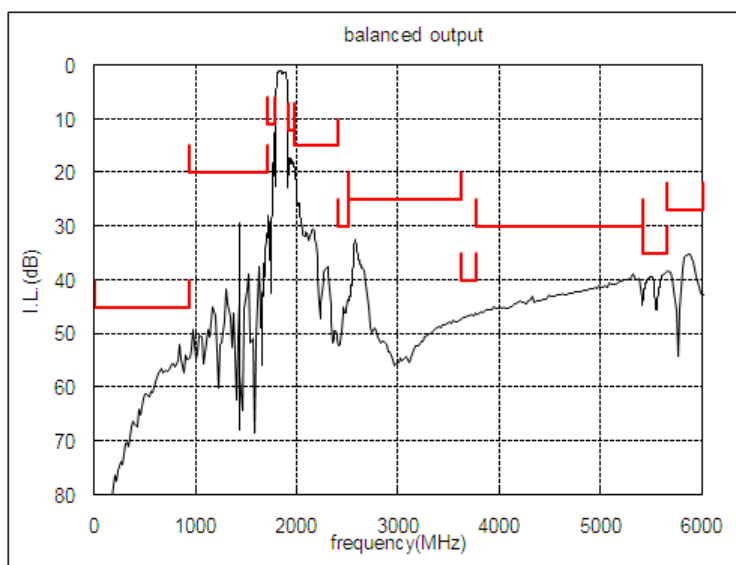
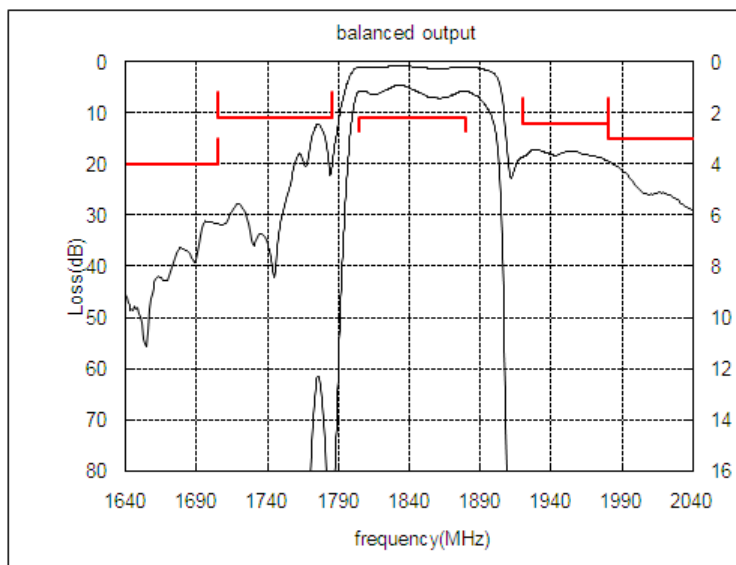
Specification

Item	Specification		
	-30 to 85°C	25±2°C	typ.
Nominal Center Frequency(fc)	1842.5MHz		
Insertion Loss (1805 to 1880MHz)	2.2 dB max.	1.7 dB max.	1.3 dB
Absolute Attenuation			
1) 0.1 to 940 MHz	45 dB min.	45 dB min.	50 dB
2) 940 to 1705 MHz	20 dB min.	20 dB min.	27 dB
3) 1705 to 1785 MHz	11 dB min.	12 dB min.	14 dB
4) 1920 to 1980 MHz	12 dB min.	15 dB min.	17 dB
5) 1980 to 2400 MHz	15 dB min.	15 dB min.	19 dB
6) 2400 to 2500 MHz	30 dB min.	30 dB min.	43 dB
7) 2500 to 3610 MHz	25 dB min.	25 dB min.	32 dB
8) 3610 to 3760 MHz	40 dB min.	40 dB min.	56 dB
9) 3760 to 5415 MHz	30 dB min.	30 dB min.	45 dB
10) 5415 to 5640 MHz	35 dB min.	35 dB min.	44 dB
11) 5640 to 6000 MHz	27 dB min.	27 dB min.	38 dB
Ripple Deviation (1805 to 1880MHz)	1.5 dB max.	1.0 dB max.	0.4 dB
VSWR (1805 to 1880MHz)	2.2 max.	2.1 max.	1.8
Amplitude Balance (1805 to 1880MHz)	±1.5dB max.	±1.2dB max.	+0.8dB
Phase Balance (1805 to 1880MHz)	180±10deg. max.	180±10deg. max.	180+3deg.
Unbalance Port Matching Impedance (nominal)	50Ω		
Balance Port Matching Impedance (nominal)	150Ω//18nH		
Input Signal Level	20mW (+13dBm), 2000 hours		

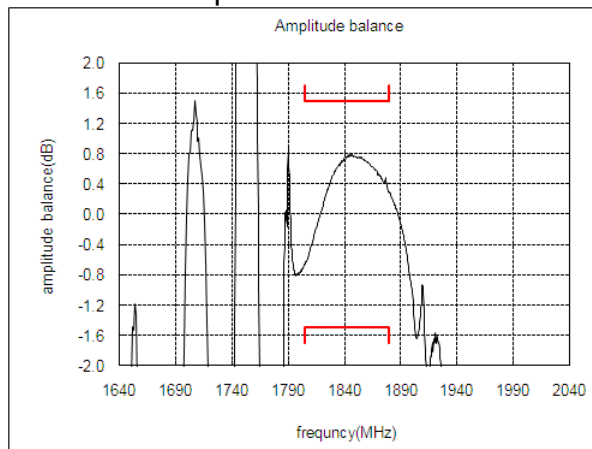
SAW FILTER FOR GSM900/1800

Murata part number : SAWFD942MCM0F0A (fc=1842.5MHz)

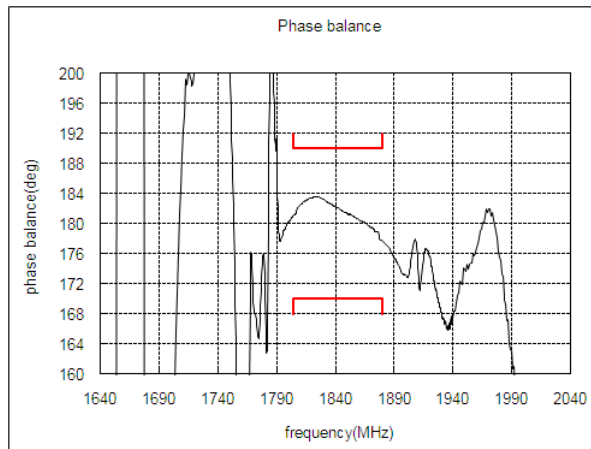
Frequency Performance



Amplitude balance



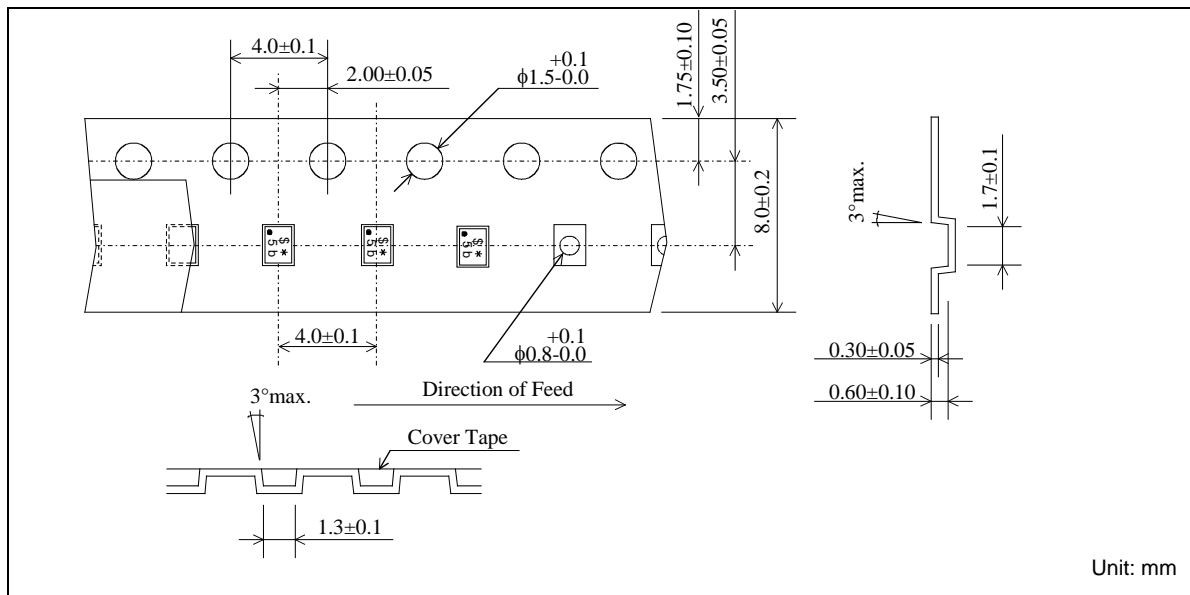
Phase balance



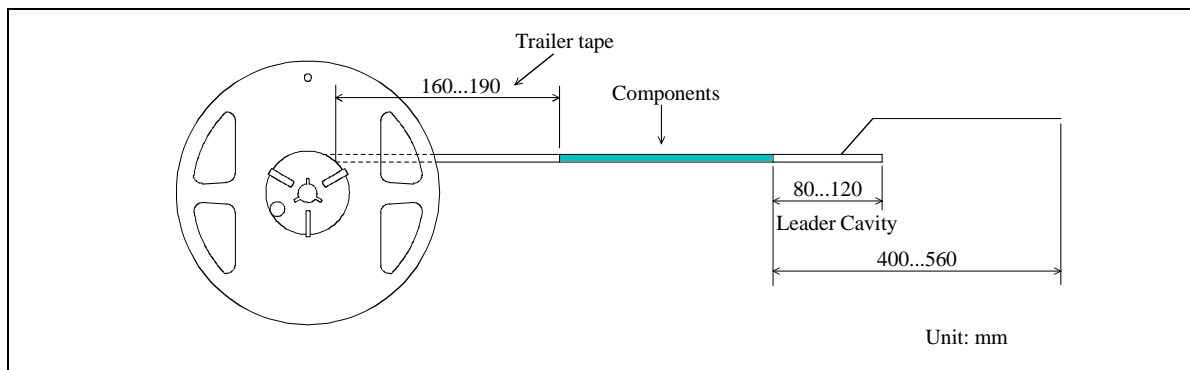
SAW FILTER FOR GSM900/1800

Murata part number : SAWFD942MCM0F0A

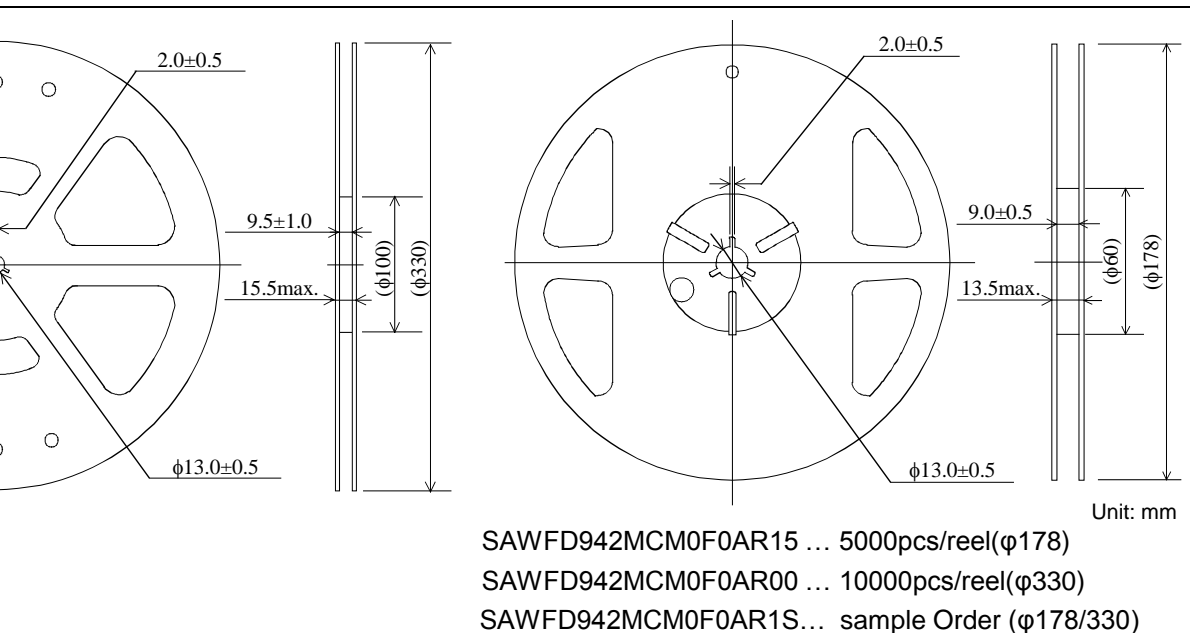
Dimensions of Carrier Tape



Dimensions of Tape



Dimensions of Reel

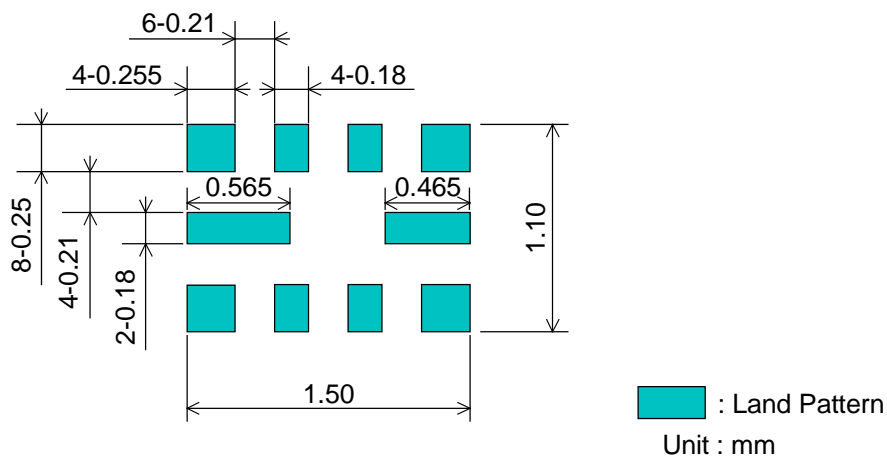


SAW FILTER FOR GSM900/1800

Murata part number : SAWFD942MCM0F0A

Recommended Land Pattern

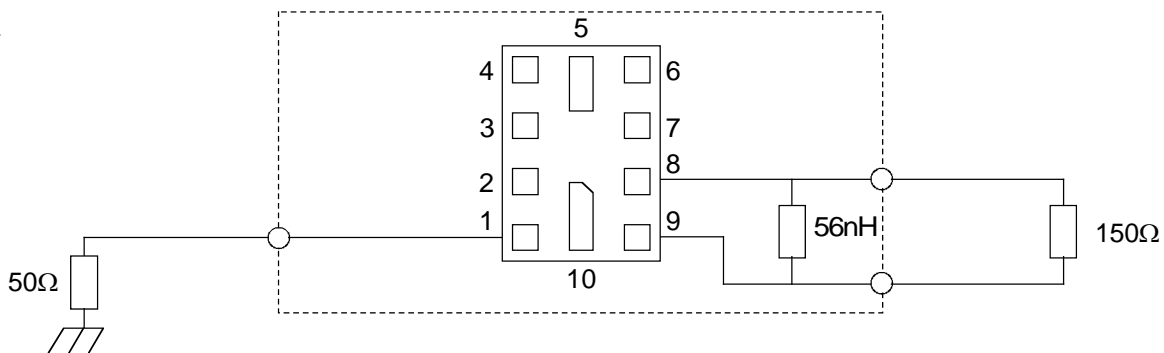
Top View



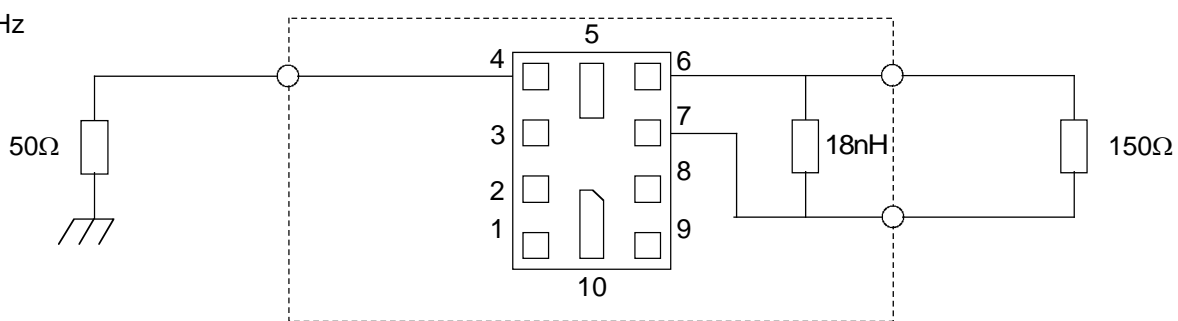
Test Circuit

Bottom View

942.5MHz



1842.5MHz



SAW FILTER FOR GSM900/1800

Murata part number : SAWFD942MCM0F0A

■ RoHS Compliance

This component is compliant with RoHS directive.

This component was always RoHS compliant from the first date of manufacture.

• Caution - Limitation of Applications
 This product is intended for the following applications only; however, please do not use this product in these applications where defects might directly cause damage to a third party's life, body or property.

a. Mobile Telephone
 b. Cordless phone (except for Automotive use)
 c. PC (Including Notebook PC, Netbook PC, Tablet)
 d. Game
 e. Camera (except for Business/security use)
 f. Set Top Box
 g. Electronic dictionary
 h. Digital audio equipment

• This catalog is for reference only and not an official product specification document, therefore, please review and approve our official product specification before ordering this product.

■ Marking code

Table 1 * : EIAJ Code

This rule of code is applied repeatedly every four year.

2013 2017 2021	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	A	B	C	D	E	F	G	H	J	K	L	M
2014 2018 2022	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015 2019 2023	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	a	b	c̄	d	e	f	g	h	j	k	l	m
2016 2020 2024	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 2 \$: 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	

SAW FILTER FOR GSM900/1800

Murata part number : SAWFD942MCM0F0A

■Important notice

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Furthermore, YOU AGREE TO INDEMNIFY AND DEFEND US AND OUR AFFILIATES AGAINST ALL CLAIMS, DAMAGES, COSTS, AND EXPENSES THAT MAY BE INCURRED, INCLUDING WITHOUT LIMITATION, ATTORNEY FEES AND COSTS, DUE TO THE USE OF OUR PRODUCTS IN SUCH APPLICATIONS.

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- 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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SAW FILTER FOR GSM900/1800

Murata part number : SAWFD942MCM0F0A

Customer acknowledges that Murata will, if requested by you, conduct a failure analysis for defect or alleged defect of Products only at the level required for consumer grade Products, and thus such analysis may not always be available or be in accordance with your request (for example, in cases where the defect was caused by components in Products supplied to Murata from a third party).

The product shall not be used in any other application/model than that of claimed to Murata.

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