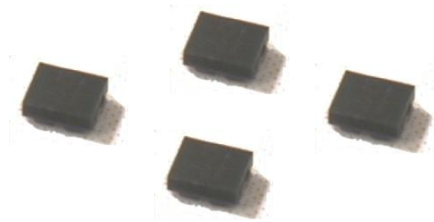
Data Sheet of SAW Components

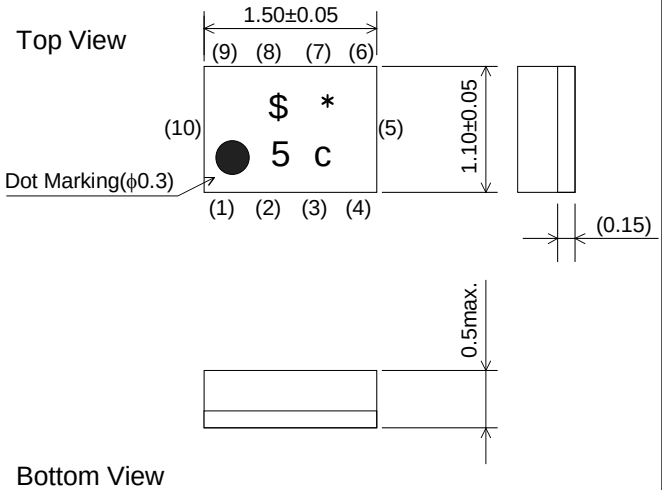


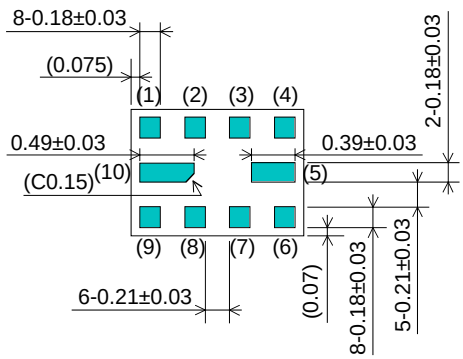
Note : Murata SAW Component is applicable for Cellular /Cordless phone (Terminal) relevant market only.
Please also read caution at the end of this document.

SAW FILTER FOR GSM900/GSM1800

Murata part number : SAWFD942MCN0F0A (fc=942.5MHz)

Package Dimensions





Marking: Laser Printing
∗ : EIAJ Code
(Refer to the table 1)
$: Date Code
(Refer to the table 2)
(4) : Unbalance Port (942.5MHz)
(1) : Unbalance Port (1842.5MHz)
(6)(7) : Balance Port (942.5MHz)
(8)(9) : Balance Port (1842.5MHz)
Others : Ground

Unit : mm

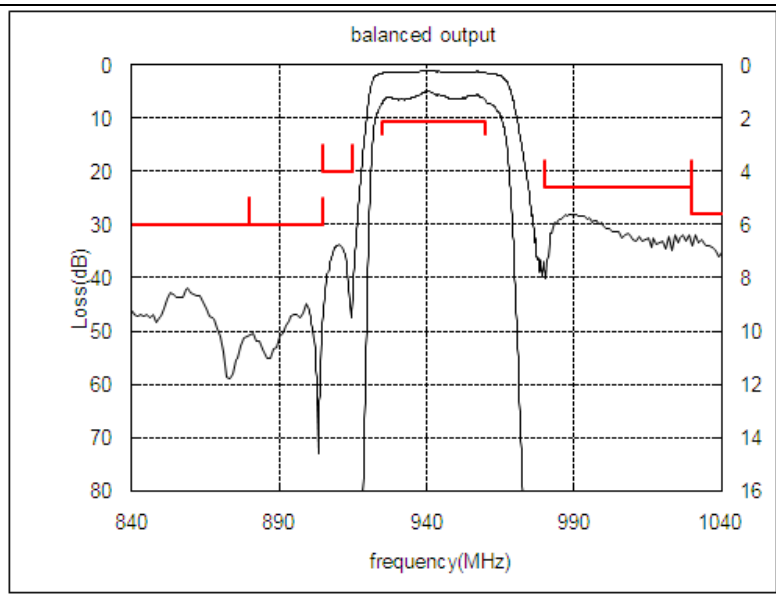
Specification

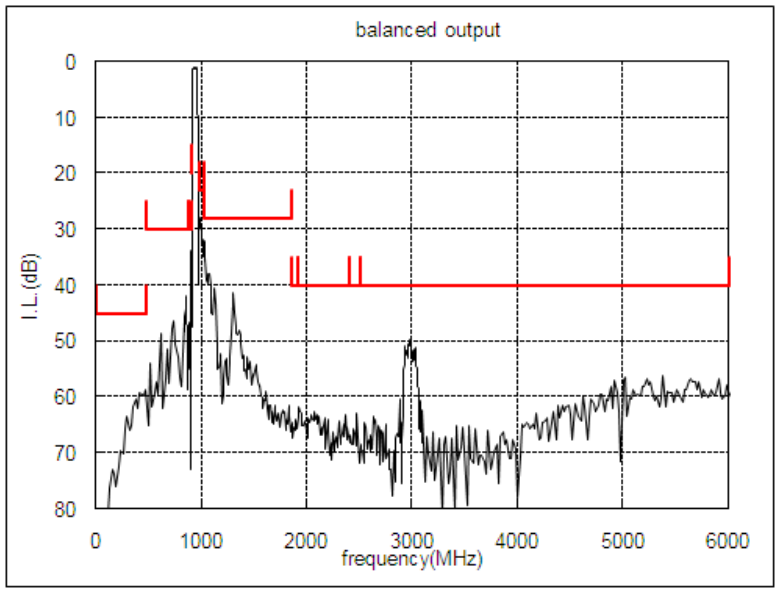
Item			Specification		
			-30 to 85°C	25±2°C	typ.
Nominal Center Frequency(fc)			942.5MHz		
Insertion Loss (925 to 960MHz)			2.1 dB max.	1.7 dB max.	1.3 dB
Absolute Attenuation					
1)	0.1 to	480 MHz	45 dB min.	45 dB min.	60 dB
2)	480 to	880 MHz	30 dB min.	30 dB min.	43 dB
3)	880 to	905 MHz	30 dB min.	30 dB min.	46 dB
4)	905 to	915 MHz	20 dB min.	23 dB min.	34 dB
5)	980 to	1030 MHz	23 dB min.	23 dB min.	28 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.	69 dB
8)	1920 to	2400 MHz	40 dB min.	40 dB min.	63 dB
9)	2400 to	2500 MHz	40 dB min.	40 dB min.	62 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.	0.4 dB
VSWR (925 to 960MHz)			2.1 max.	2.0 max.	1.7
Amplitude Balance (925 to 960MHz)			±1.0dB max.	±1.0dB max.	−0.4dB
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/GSM1800

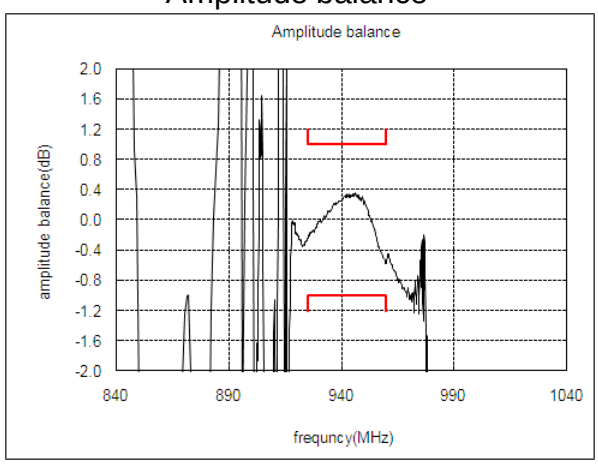
Murata part number : SAWFD942MCN0F0A (fc=942.5MHz)

■ Frequency Performance

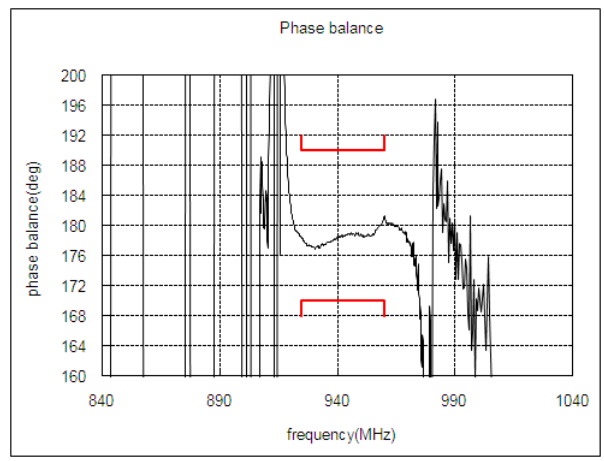




Amplitude balance



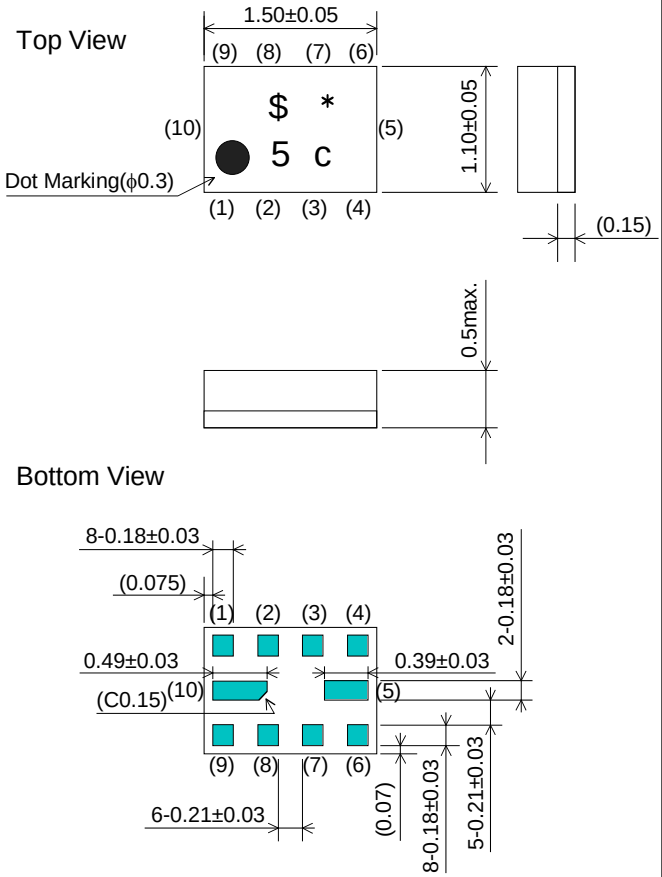
Phase balance



SAW FILTER FOR GSM900/GSM1800

Murata part number : SAWFD942MCN0F0A (fc=1842.5MHz)

■ Package Dimensions



Marking: Laser Printing
∗ : EIAJ Code
(Refer to the table 1)
$: Date Code
(Refer to the table 2)
(4) : Unbalance Port (942.5MHz)
(1) : Unbalance Port (1842.5MHz)
(6)(7) : Balance Port (942.5MHz)
(8)(9) : Balance Port (1842.5MHz)
Others : Ground

Unit : mm

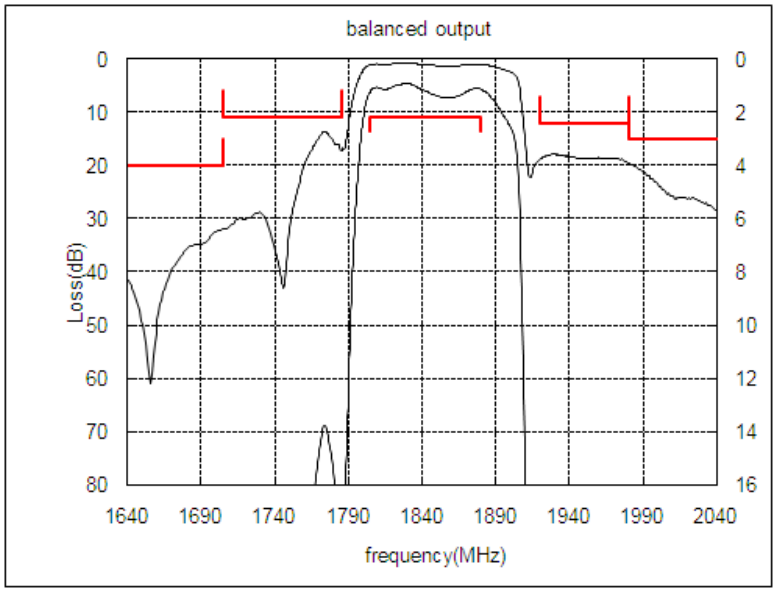
■ Specification

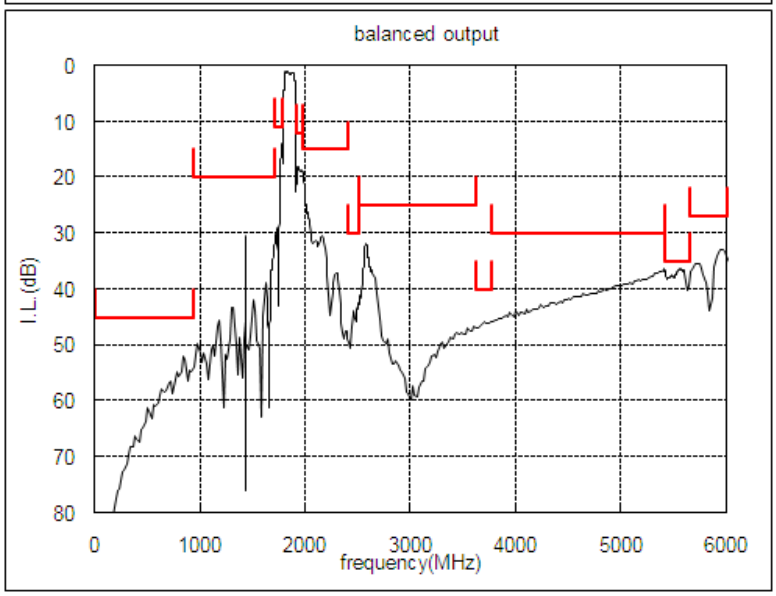
Item	Specification		
	-30 to 85°C	25±2°C	typ.
Nominal Center Frequency(fc)	1842.5MHz		
Insertion Loss (1805 to 1880MHz)	2.2 dB max.	1.7 dB max.	1.3 dB
Absolute Attenuation			
1) 0.1 to 940 MHz	45 dB min.	45 dB min.	52 dB
2) 940 to 1705 MHz	20 dB min.	20 dB min.	30 dB
3) 1705 to 1785 MHz	11 dB min.	12 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.	42 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.	52 dB
9) 3760 to 5415 MHz	30 dB min.	30 dB min.	44 dB
10) 5415 to 5640 MHz	35 dB min.	35 dB min.	43 dB
11) 5640 to 6000 MHz	27 dB min.	27 dB min.	36 dB
Ripple Deviation (1805 to 1880MHz)	1.5 dB max.	1.0 dB max.	0.5 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+4deg.
Unbalance Port Matching Impedance (nominal)	50Ω		
Balance Port Matching Impedance (nominal)	150Ω//18nH		
Input Signal Level	20mW (+13dBm), 2000 hours		

SAW FILTER FOR GSM900/GSM1800

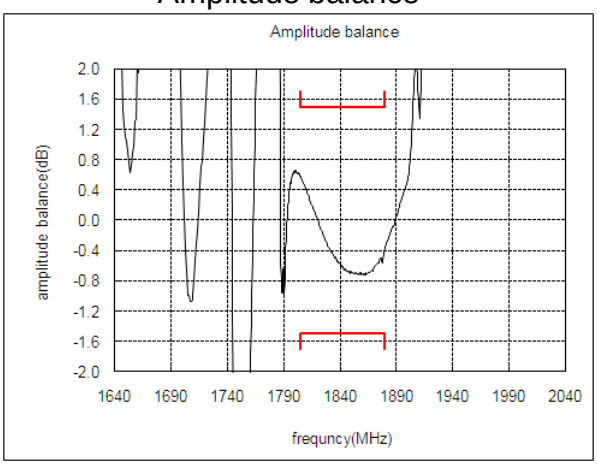
Murata part number : SAWFD942MCN0F0A (fc=1842.5MHz)

■ Frequency Performance

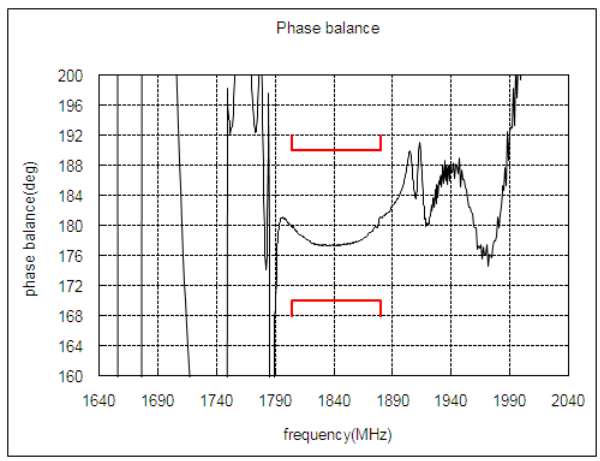




Amplitude balance



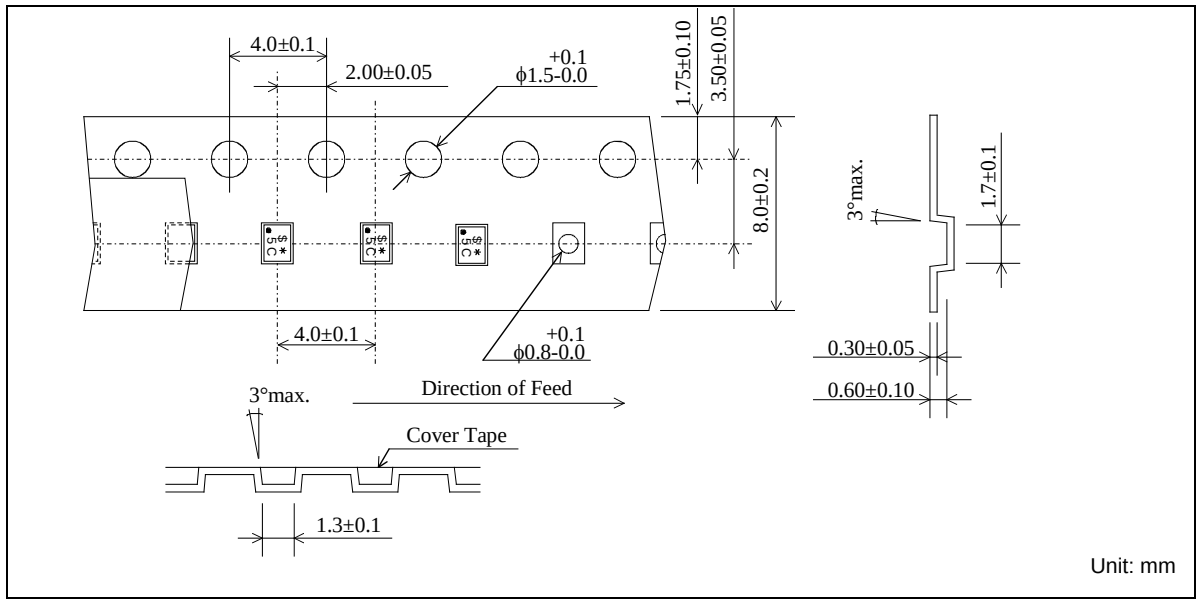
Phase balance



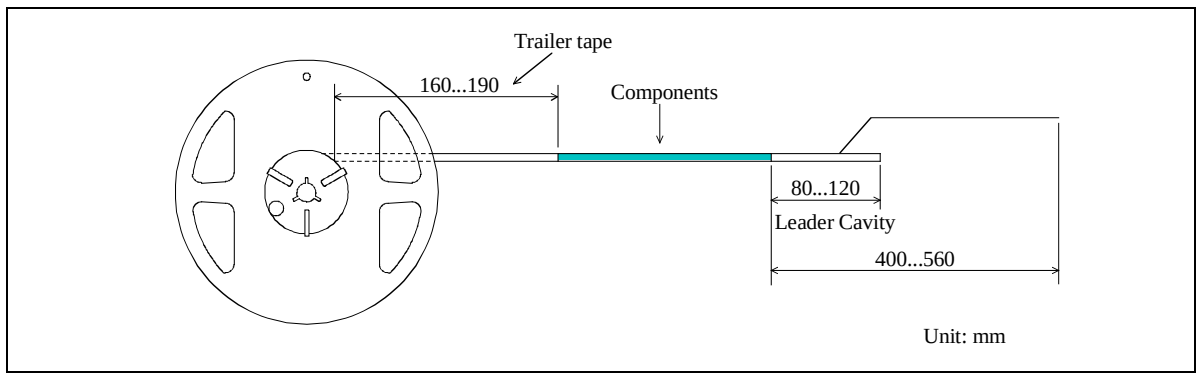
SAW FILTER FOR GSM900/GSM1800

Murata part number : SAWFD942MCN0F0A

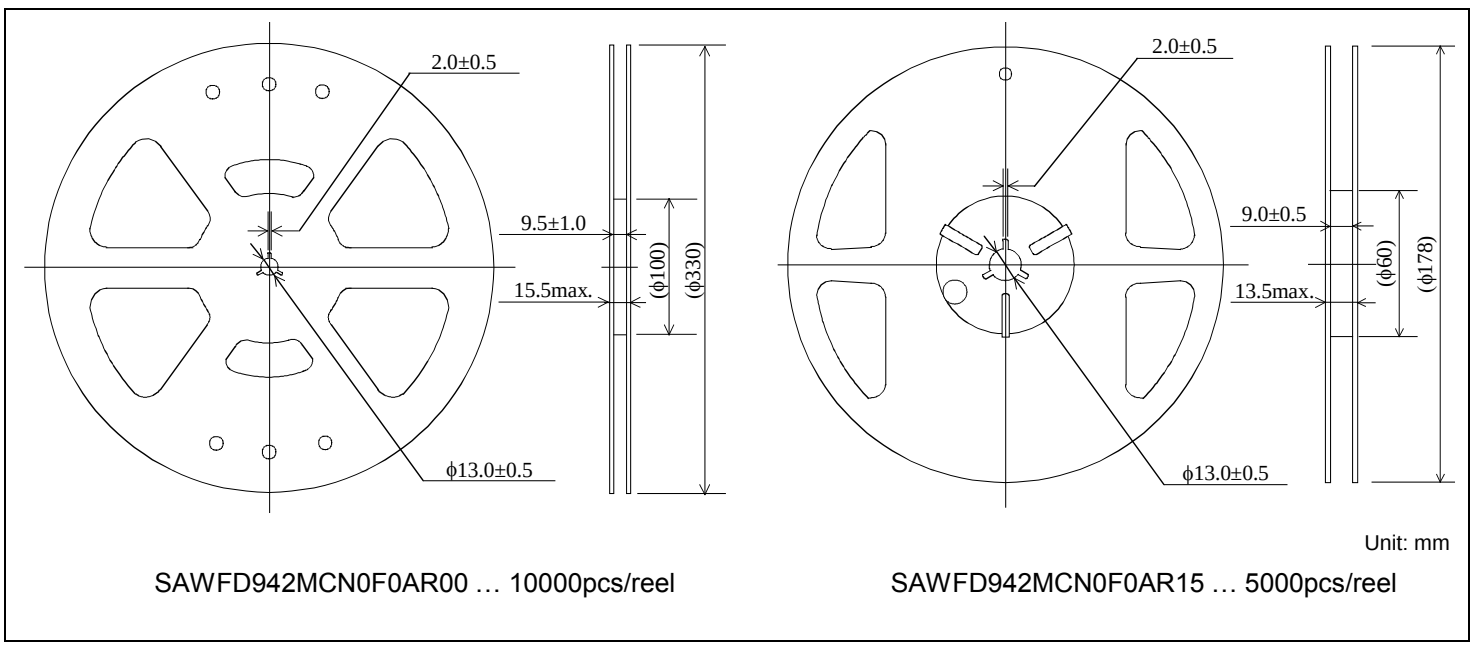
■ Dimensions of Carrier Tape



■ Dimensions of Tape



■ Dimensions of Reel



SAWFD942MCN0F0AR00 … 10000pcs/reel

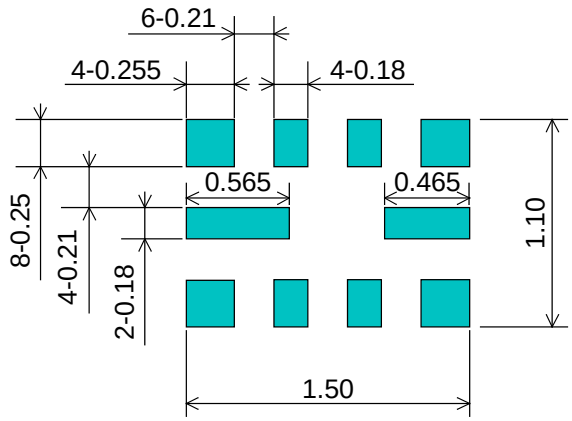
SAWFD942MCN0F0AR15 … 5000pcs/reel

SAW FILTER FOR GSM900/GSM1800

Murata part number : SAWFD942MCN0F0A

■ Recommended Land Pattern

Top View



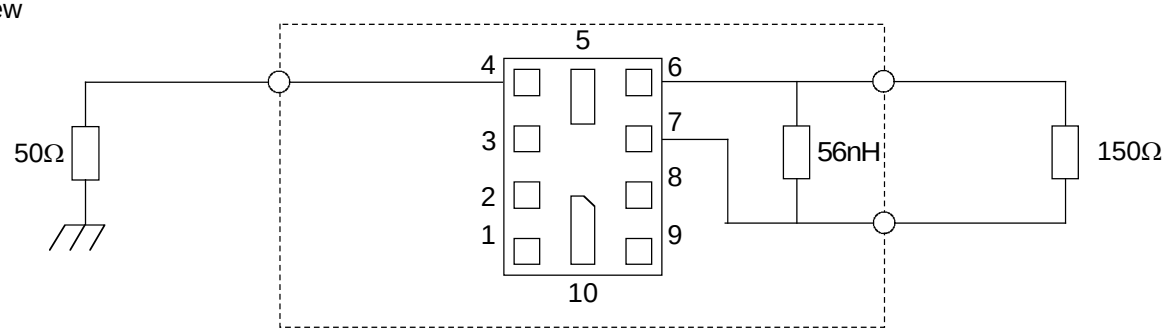
: Land Pattern

Unit : mm

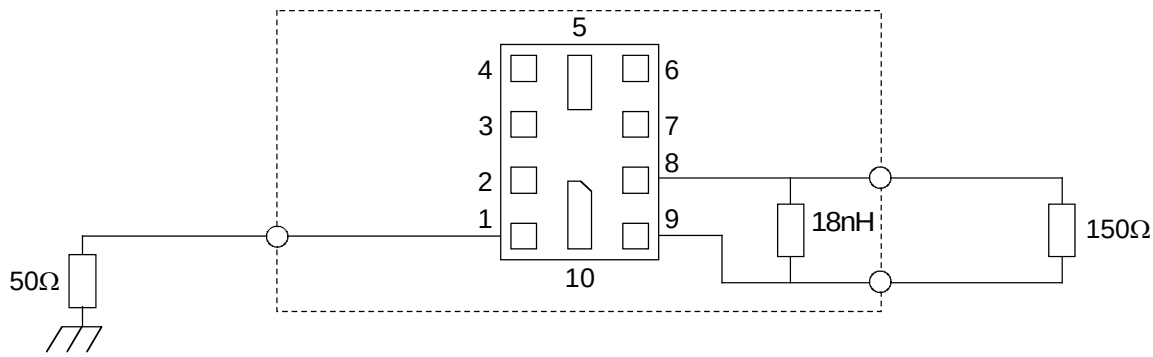
■ Test Circuit

Bottom View

942.5MHz



1842.5MHz



SAW FILTER FOR GSM900/GSM1800

Murata part number : SAWFD942MCN0F0A

■ 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.

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 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