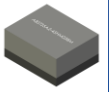


SMD 2441.75 MHZ SAW FILTER



ABSTS5A2-45HM03BM

Request Samples



Check Inventory



1.1 x 0.9 x 0.5 mm
RoHS Compliant
MSL Level = 3

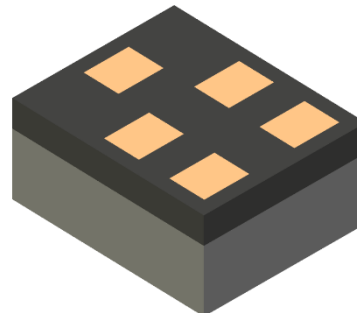
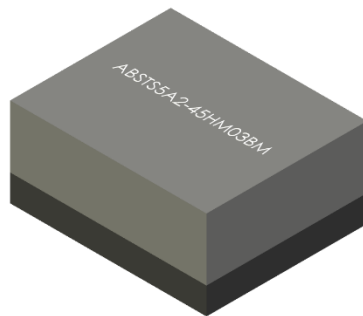
Features

- 1.1 x 0.9 x 0.5 mm in Size
- Low Insertion Loss: 2.0 dB
- Out-of-Band Rejection: > 15 dB
- 50 Ohms Single-Ended Input & Output
- Maximum Input Power: +10 dBm

Applications

- Wi-Fi/WLAN Coverage
 - Wi-Fi 4/5 (802.11b/g/n/ac)
- Bluetooth® / ZigBee® / Thread/ Matter
- Router and Networking
- Home Automation and Remote Sensing

Product Image



SMD 2441.75 MHZ SAW FILTER



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1.1 x 0.9 x 0.5 mm
RoHS Compliant
MSL Level = 3

Electrical Specification

Parameters	Minimum	Typical	Maximum	Units	Notes
Center Frequency (fc)	2400	2441.75	2483.5	MHz	
Bandwidth	55	78	-	MHz	
Insertion Loss	-	2.0	2.7	dB	2400~2483.5 MHz
Amplitude Ripple	-	0.7	1.5	dB	2400~2483.5 MHz
Group Delay	-	7.7	13	ns	2400~2483.5 MHz
Attenuation (Refer to min. insertion loss)	30	35	-	dB	0.1 – 960 MHz
	32	35	-		1570 – 1990 MHz
	40	45	-		2110 – 2170 MHz
	30	35	-		2170 – 2300 MHz
	25	33	-		2300 – 2320 MHz
	18	25	-		2320 – 2345 MHz
	10	15	-		2345 – 2365 MHz
	15	20	-		2550 – 2800 MHz
	30	33	-		2800 – 4000 MHz
	30	33	-		4000 – 5000 MHz
VSWR	-	2.0	2.4	-	2400~2483.5 MHz
DC Voltage	-	3	-	V	
Input Power Level	-	-	10	dBm	
Terminating Source Impedance	-	50	-	Ω	
Terminating Load Impedance	-	50	-	Ω	

Mechanical Specification

Parameters	Specifications
Filter Dimension	1.1 x 0.9 x 0.5 mm
Mounting Type	Surface Mount

Environmental Specification

Parameters	Specifications
Operating Temperature Range	-30°C ~ +85°C
Storage Temperature Range	-40°C ~ +105°C
MSL level	3

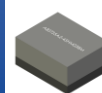


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REVISED: 06-16-21

ABRACON IS
ISO9001-2015
CERTIFIED

SMD 2441.75 MHZ SAW FILTER



ABSTS5A2-45HM03BM

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Check Inventory 

1.1 x 0.9 x 0.5 mm
RoHS Compliant
MSL Level = 3

Ordering Information

Part Number	Description
ABSTS5A2-45HM03BM	SMD 2441.75 MHZ SAW FILTER

Note: Other options not listed may be available upon request via [Abracon online support](#)



SMD 2441.75 MHZ SAW FILTER

ABSTS5A2-45HM03BM

Request Samples

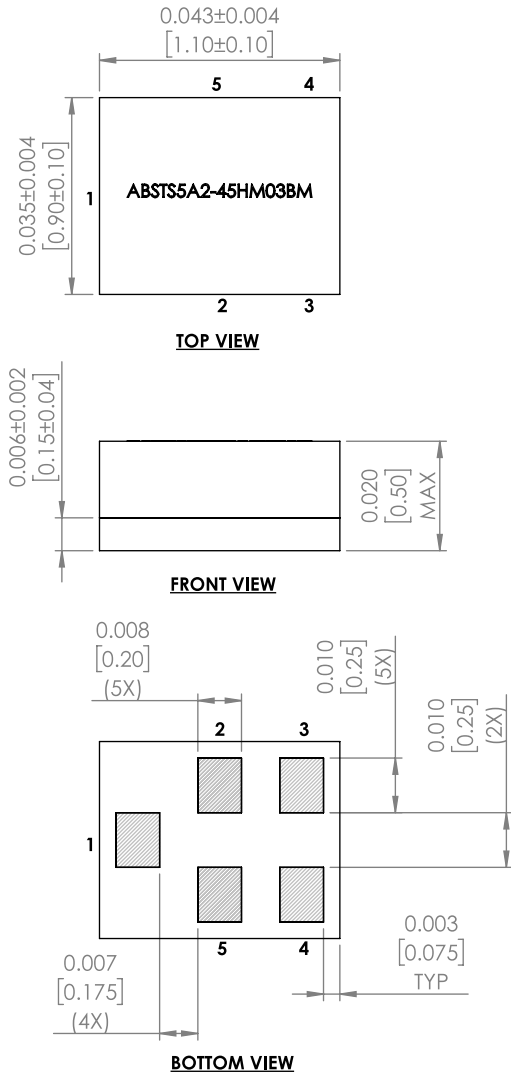


Check Inventory



1.1 x 0.9 x 0.5 mm
RoHS Compliant
MSL Level = 3

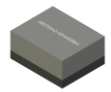
Product Dimensions



All tolerances are +/-0.05 mm unless otherwise specified
Coplanarity : 0.1 mm max.
DIMENSIONS: INCHES[MM]

Unit : inches[mm]

Pin No.	Description
2, 3, 5	Ground
1	Input
4	Output



SMD 2441.75 MHZ SAW FILTER

ABSTS5A2-45HM03BM

Request Samples

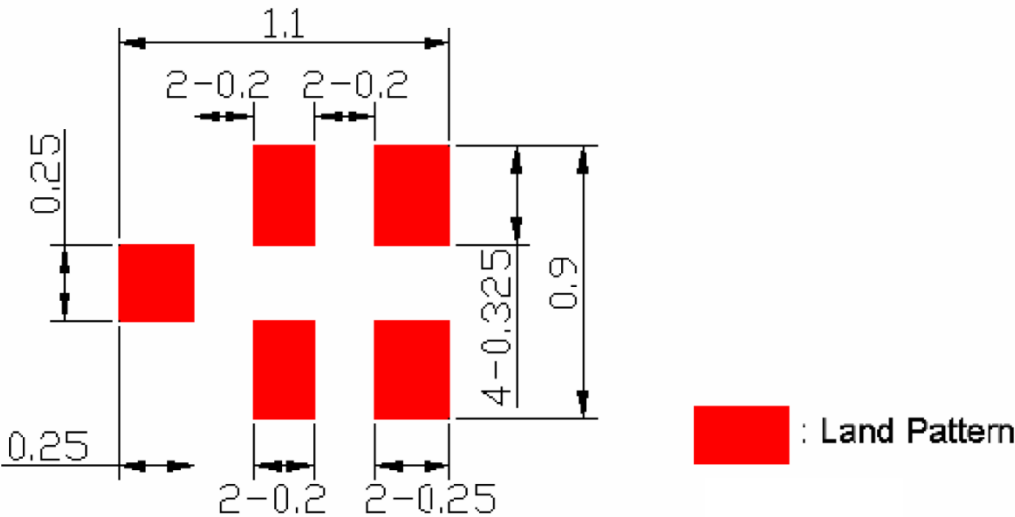


Check Inventory



1.1 x 0.9 x 0.5 mm
RoHS Compliant
MSL Level = 3

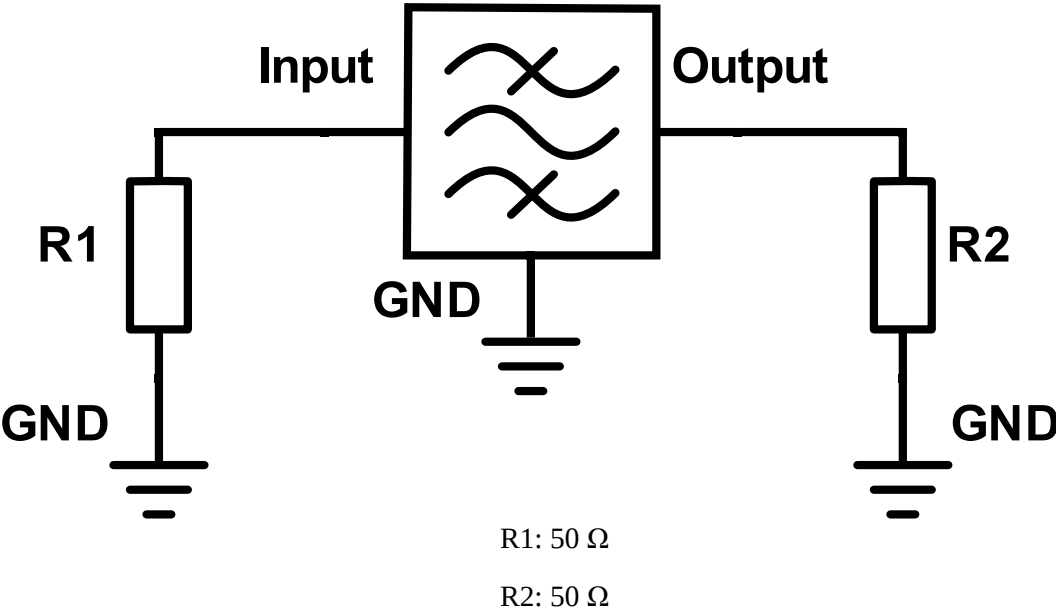
Recommended Land Pattern



Unit : mm

Please note: The line width should be designed to achieve a 50-ohm characteristic impedance, depending on the PCB material and thickness. For technical assistance, please contact [Abracon online support](#) through our online support platform.

Measurement Circuit





SMD 2441.75 MHZ SAW FILTER

ABSTS5A2-45HM03BM

Request Samples



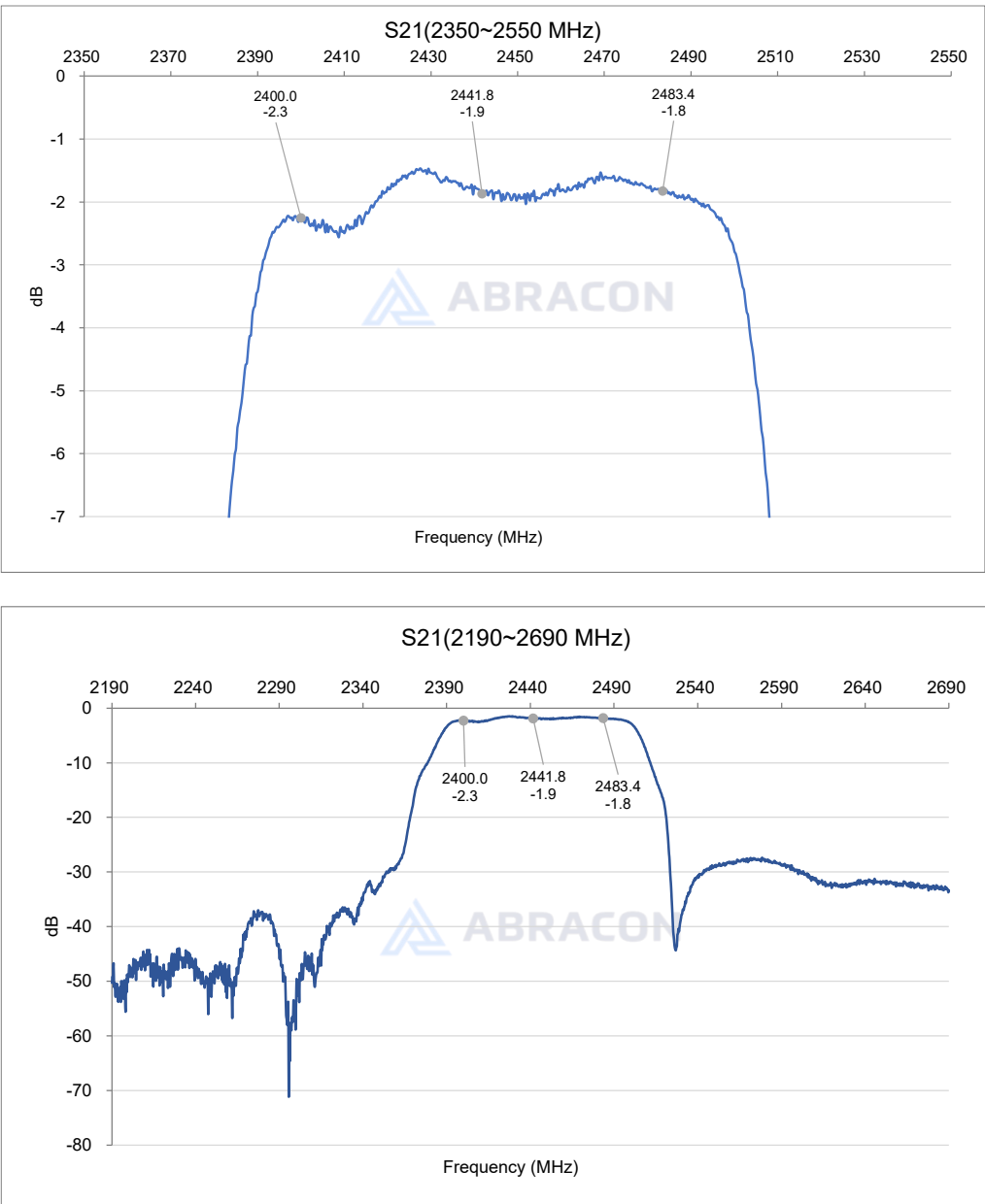
Check Inventory



1.1 x 0.9 x 0.5 mm
RoHS Compliant
MSL Level = 3

Frequency Characteristics

S21 narrow band





SMD 2441.75 MHZ SAW FILTER

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Request Samples

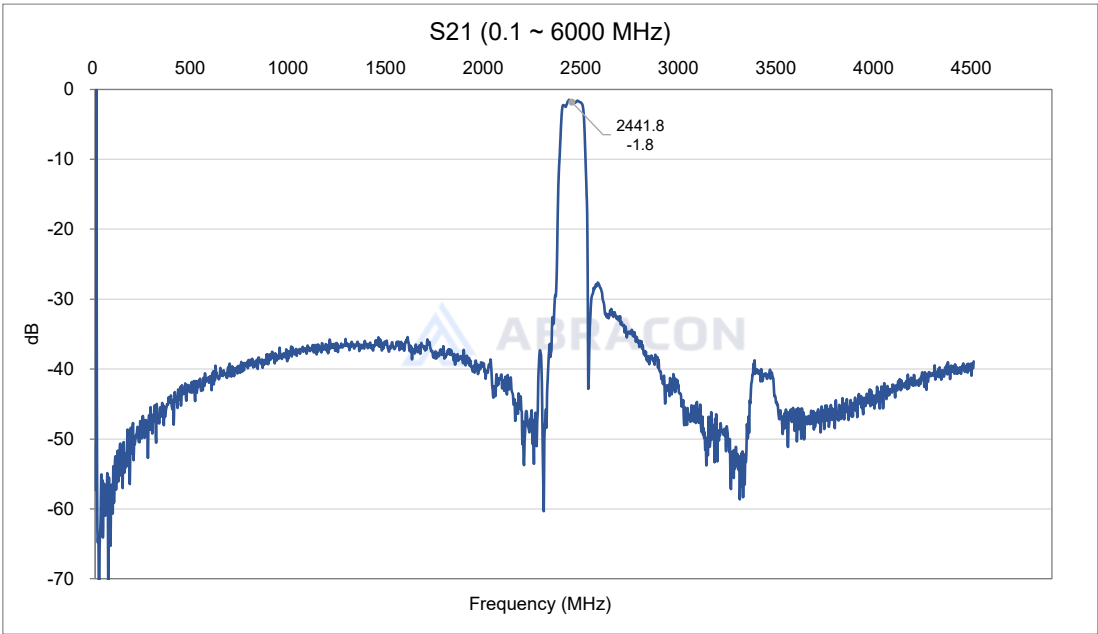


Check Inventory

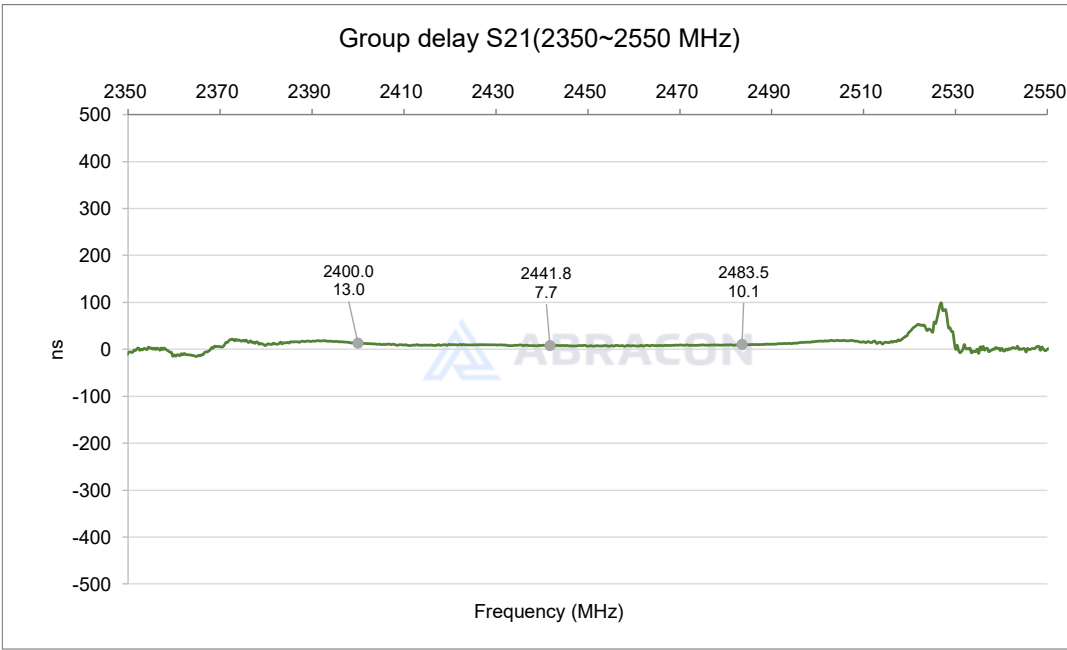


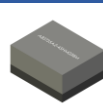
1.1 x 0.9 x 0.5 mm
RoHS Compliant
MSL Level = 3

S21 Wide Band



Group Delay Ripple





SMD 2441.75 MHz SAW FILTER

ABSTS5A2-45HM03BM

Request Samples

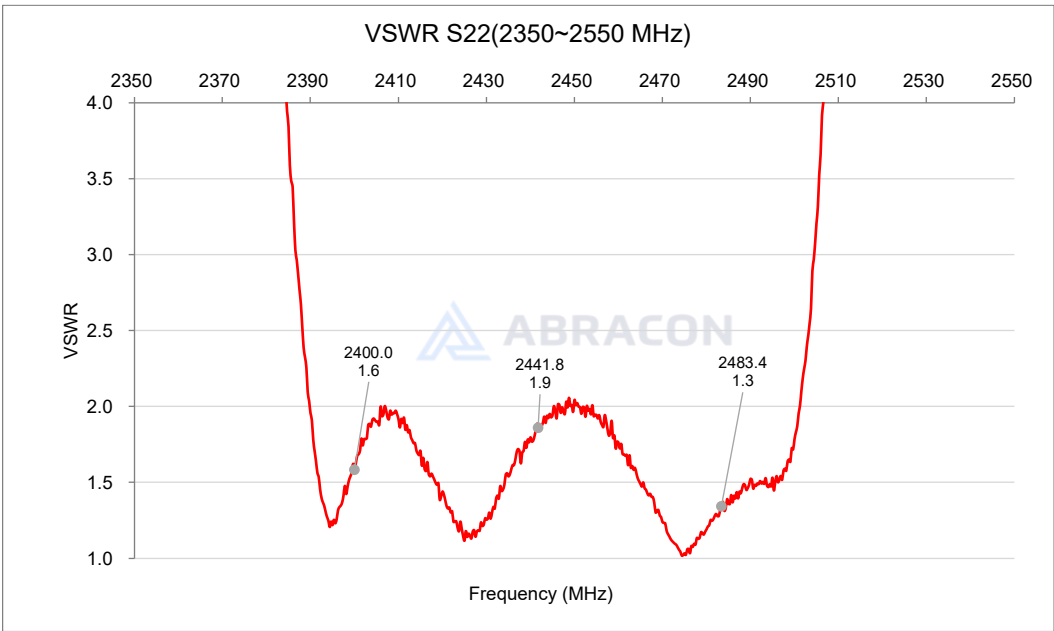
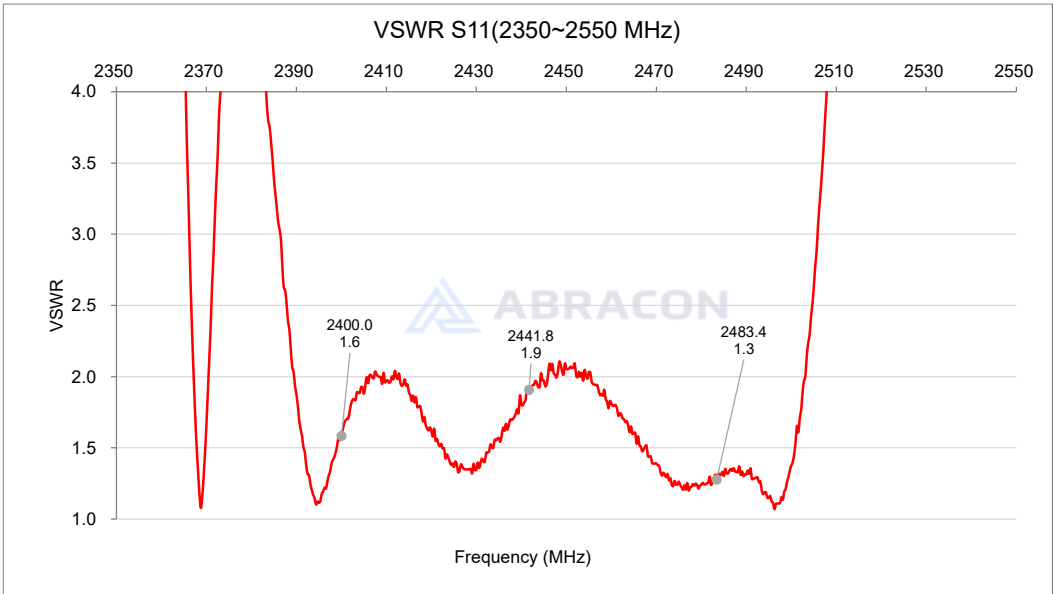


Check Inventory

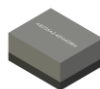


1.1 x 0.9 x 0.5 mm
RoHS Compliant
MSL Level = 3

VSWR (S11 & S22)



SMD 2441.75 MHZ SAW FILTER



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Request Samples



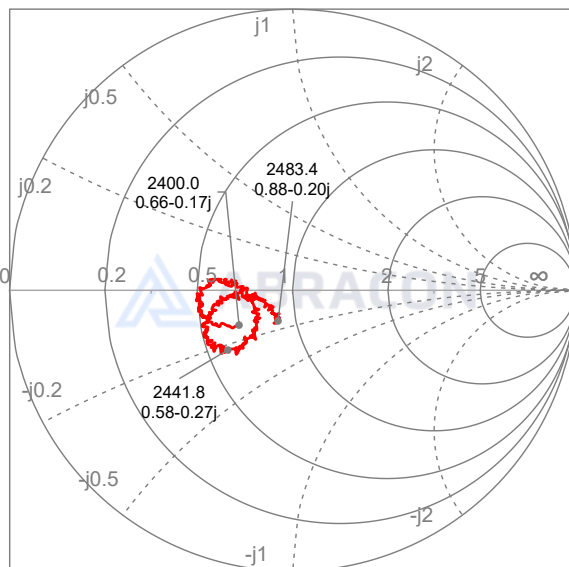
Check Inventory



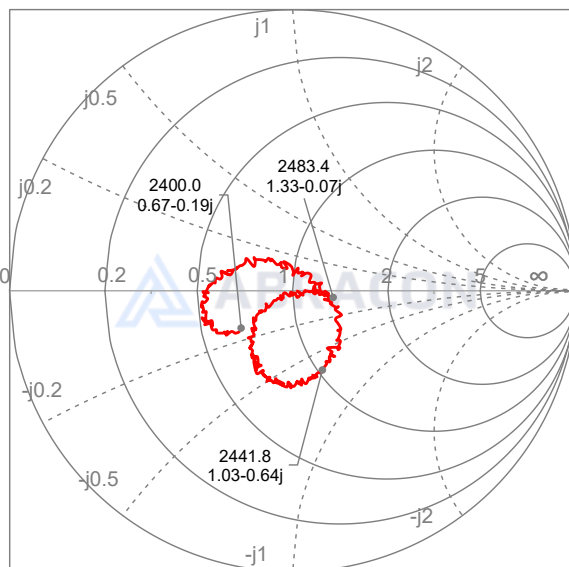
1.1 x 0.9 x 0.5 mm
RoHS Compliant
MSL Level = 3

Smith Chart (S11 & S22)

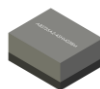
Smith chart S11 (2400~2483.5 MHz)



Smith chart S22 (2400~2483.5 MHz)



SMD 2441.75 MHZ SAW FILTER



ABSTS5A2-45HM03BM

Request Samples



Check Inventory



1.1 x 0.9 x 0.5 mm
RoHS Compliant
MSL Level = 3

Reflow Profile [JEDEC J-STD-020]

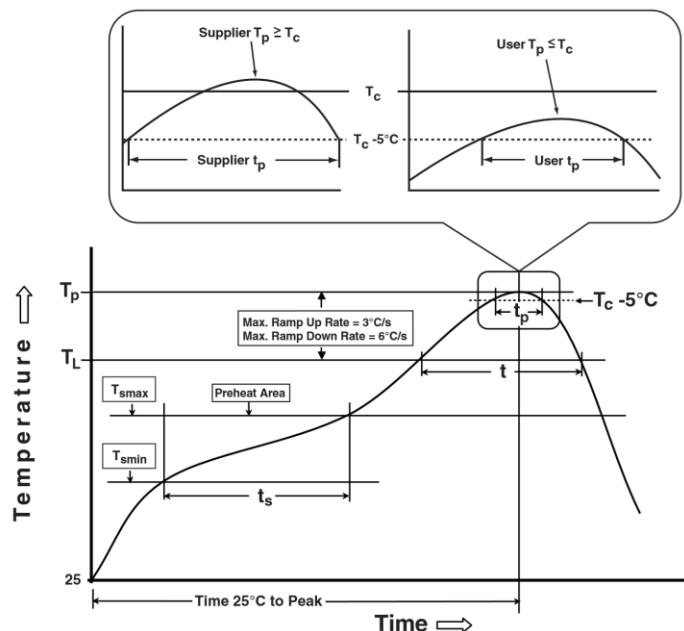


Table 1

SnPb Eutectic Process
Classification Temperatures (T_c)

Package Thickness	Volume mm ³ <350	Volume mm ³ ≥350
<2.5mm	235°C	220°C
≥2.5mm	220°C	220°C

Table 2

Pb-Free Process
Classification Temperatures (T_c)

Package Thickness	Volume mm ³ <350	Volume mm ³ 350-2000	Volume mm ³ >2000
<1.6mm	260°C	260°C	260°C
1.6mm - 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Preheat / soak		
Temperature minimum (T_{smmin})	100°C	150°C
Temperature maximum (T_{smmax})	150°C	180°C
Time (T_{smmin} to T_{smmax}) (t_s)	60 – 120 sec.	60 – 90 sec.
Average ramp-up rate (T_{smmax} to T_p)	3°C/sec. max	3°C/sec. max
Liquidous temperature (T_L)	183°C	220°C
Time at Liquidous (T_L)	60 – 150 sec.	50 – 80 sec.
Peak package body temperature (T_p)*	See Table 1	See Table 2
Time (T_p)* within 5°C of the specified classification temperature (T_c)	20 sec.	20 ~ 40 sec.
Ramp-down rate (T_p to T_{smmax})	6°C/sec. max	6°C/sec. max
Time 25°C to peak temperature	6 min. max	8 min. max
Reflow cycles	2 max	2 max

*Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.

**Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.



SMD 2441.75 MHZ SAW FILTER

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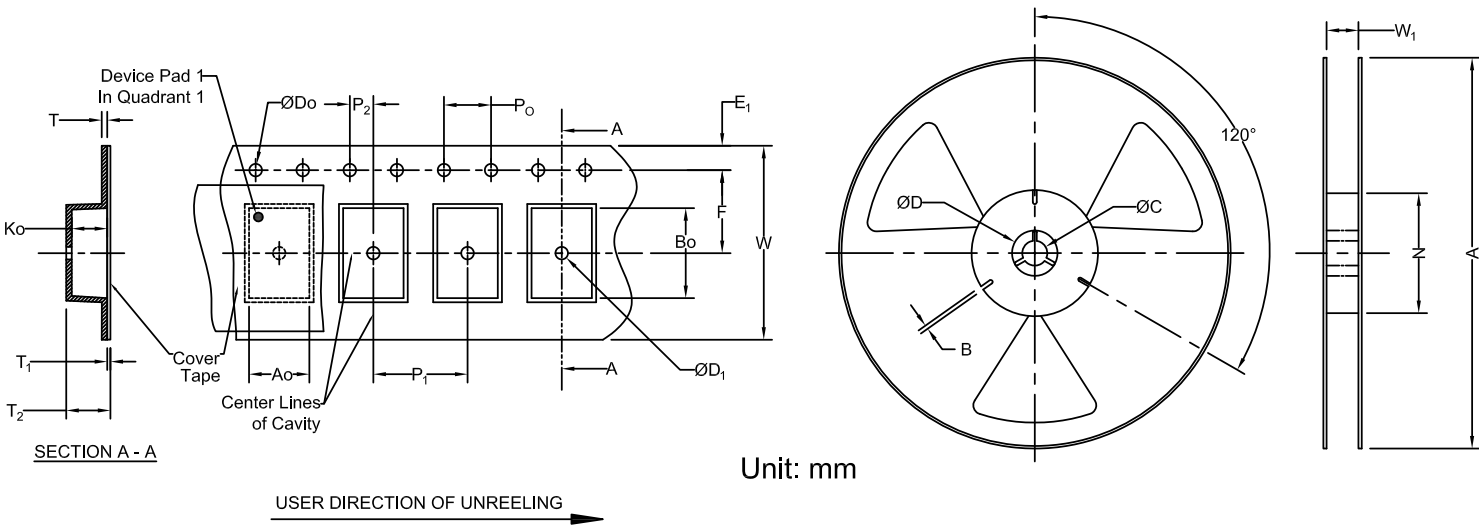


1.1 x 0.9 x 0.5 mm
RoHS Compliant
MSL Level = 3

Packaging

Tape & Reel

1. Tape & Reel Dimension



Carrier Tape Specifications (mm)

D0	D1	E1	P0	P2	T	F	P1	W	A0	B0	K0	Reel Qty
1.5 ± 0.1	0.5 ± 0.05	1.75 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	0.2 ± 0.05	3.5 ± 0.05	4.0 ± 0.1	8.0 ± 0.2	1.3 ± 0.1	1.06 ± 0.03	0.75 ± 0.05	5,000

Reel Specifications (mm)

A	W1	N	C	B
178.0 ± 1.0	8.4 ± 0.5	72.0 ± 1.0	13.0 ± 0.2	2.5

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf ("COTS"), which are designed, intended, and validated for use in commercial, industrial, and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.



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