

836.5 MHz SMD SAW Filter

ABSNS6A7-1AKM011M

Request Samples



Check Inventory



3.0 x 3.0 x 1.3 mm
RoHS Compliant

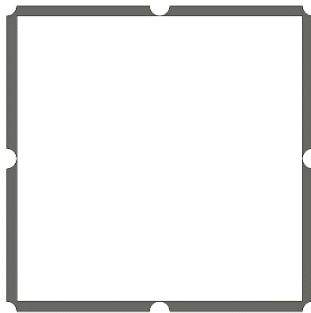
Features

- Bandpass SAW Filter with 25 MHz Bandwidth
- Surface Mount 3.0 x 3.0 x 1.3 mm package
- Single-Ended Input and Output
- Excellent selectivity with high out-of-band

Applications

- CDMA, WCDMA 850 and AMPS applications
- Wireless infrastructure
- Distributed Antenna Systems (DAS)
- Repeaters and PCS Applications

Product Image



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Electrical Specification

Parameters	Minimum	Typical	Maximum	Units	Notes
Center Frequency (fc)	-	836.5	-	MHz	
Insertion Loss	-	2.4	3.5	dB	824.0~849.0 MHz
Amplitude Ripple	-	0.8	1.6	dB _{p-p}	824.0~849.0 MHz
Attenuation	47	54	-	dB	D.C.~800.0 MHz
	15	17	-		859.0~869.0 MHz @25°C
	28	33			869.0~1049.0MHz
	50	55			1049.0~1200.0MHz
	45	52			1200.0~2000.0 MHz
VSWR	-	1.6	2.0	-	824.0~849.0 MHz
DC Voltage	-	-	5	V	
Input Power	-	-	10	dBm	
Source Impedance (single ended) ¹	-	50	-	Ω	
Load Impedance (single ended) ¹	-	50	-	Ω	

Notes: (1) No Matching Network (Ref. Testing Environment Circuit as shown below)

Mechanical Specification

Parameters	Specifications
Dimension	3.0 x 3.0 x 1.3 mm
Mounting Type	SMD Mount

Environmental Specification

Parameters	Specifications
Operating Temperature Range	-25°C ~ +85°C
Storage Temperature Range	-40°C ~ +85°C
MSL level	N/A
ESD	N/A



5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
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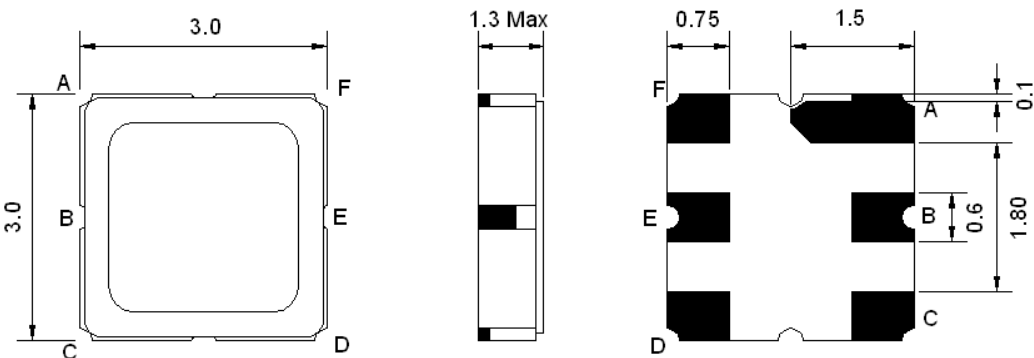


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Product Dimensions



Unit : mm

Pin No.	Description
A, C, D, F	Ground
E	Input
B	Output

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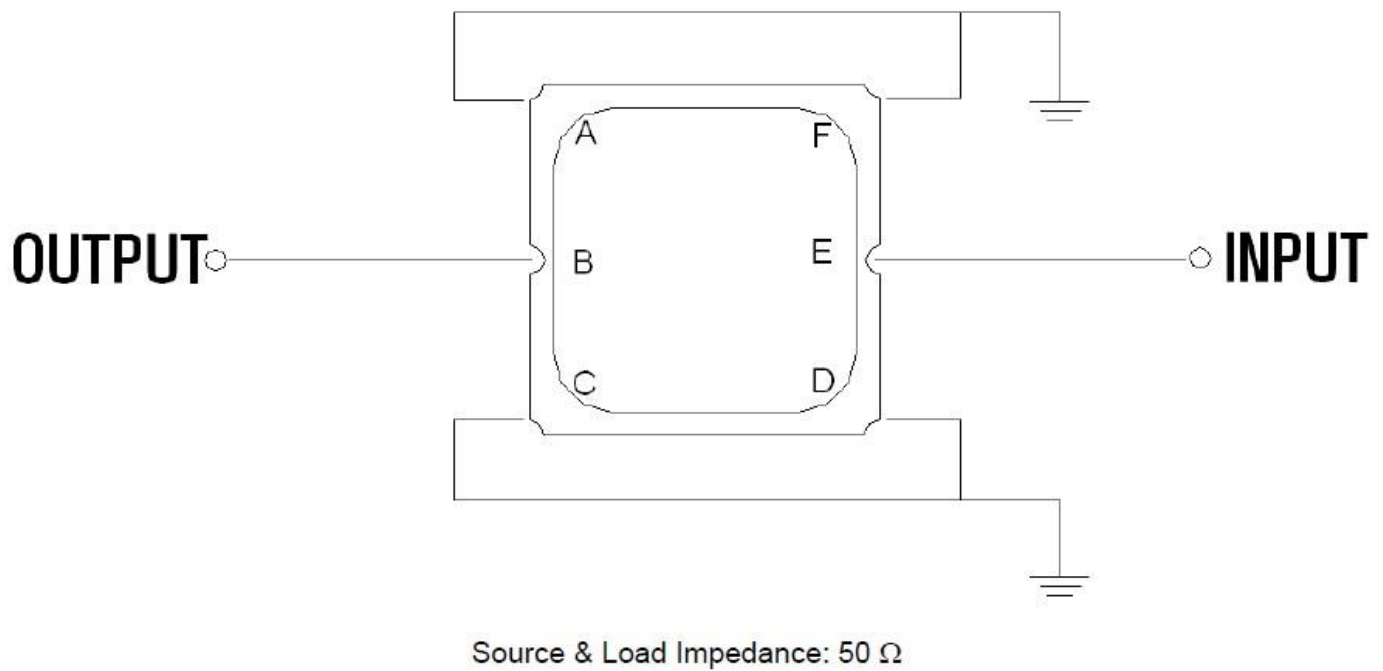


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Measurement Circuit



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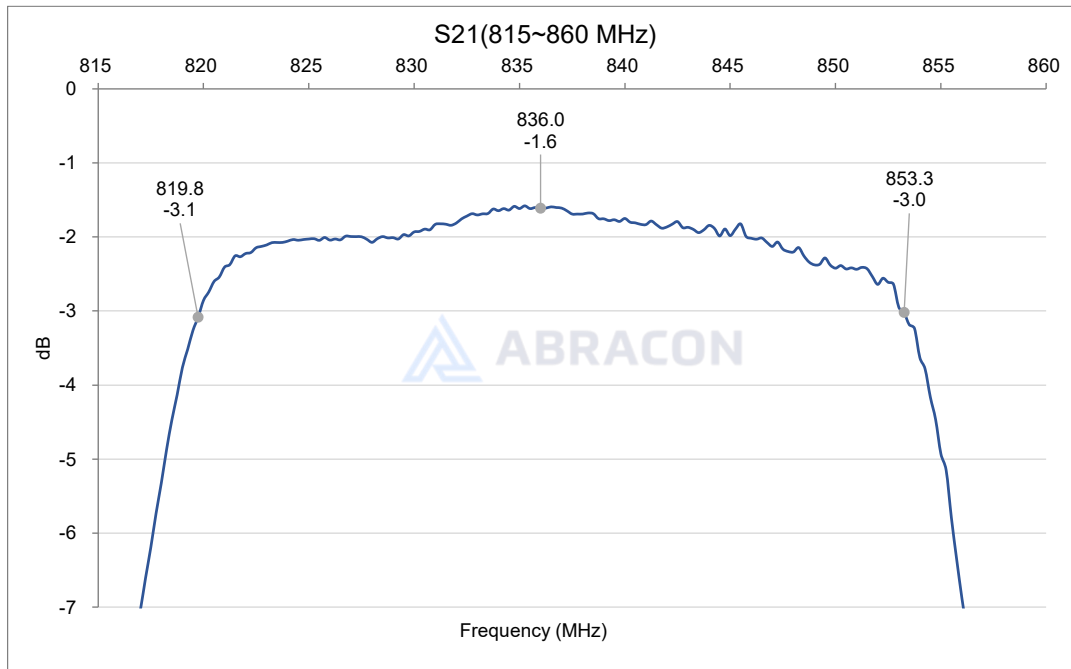
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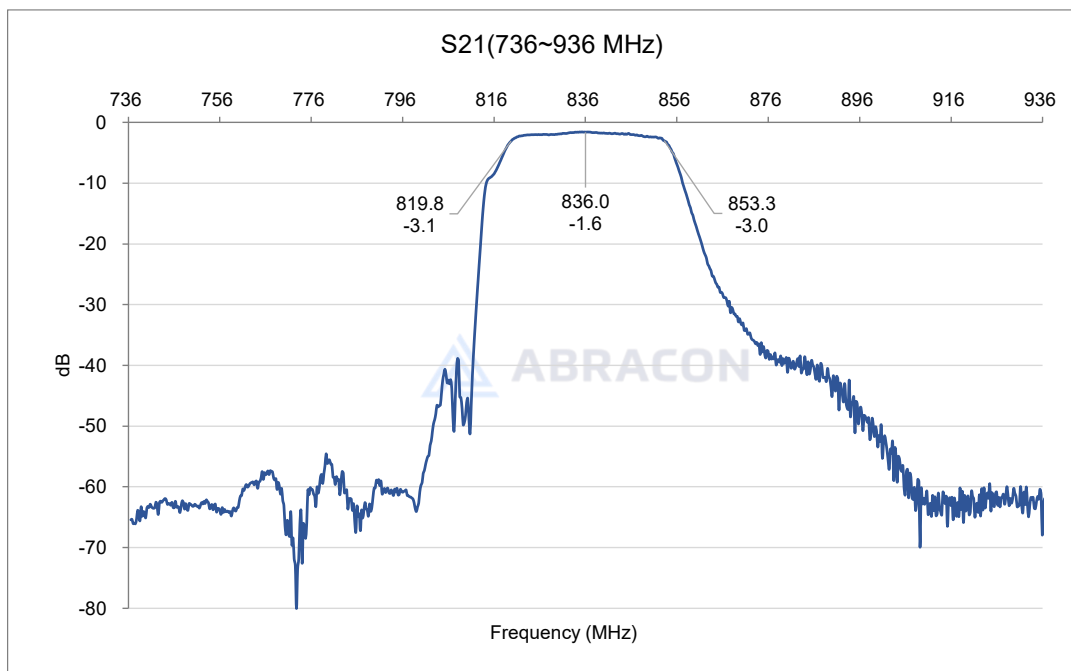
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Frequency Characteristics

S21 narrow band



S21 wide band



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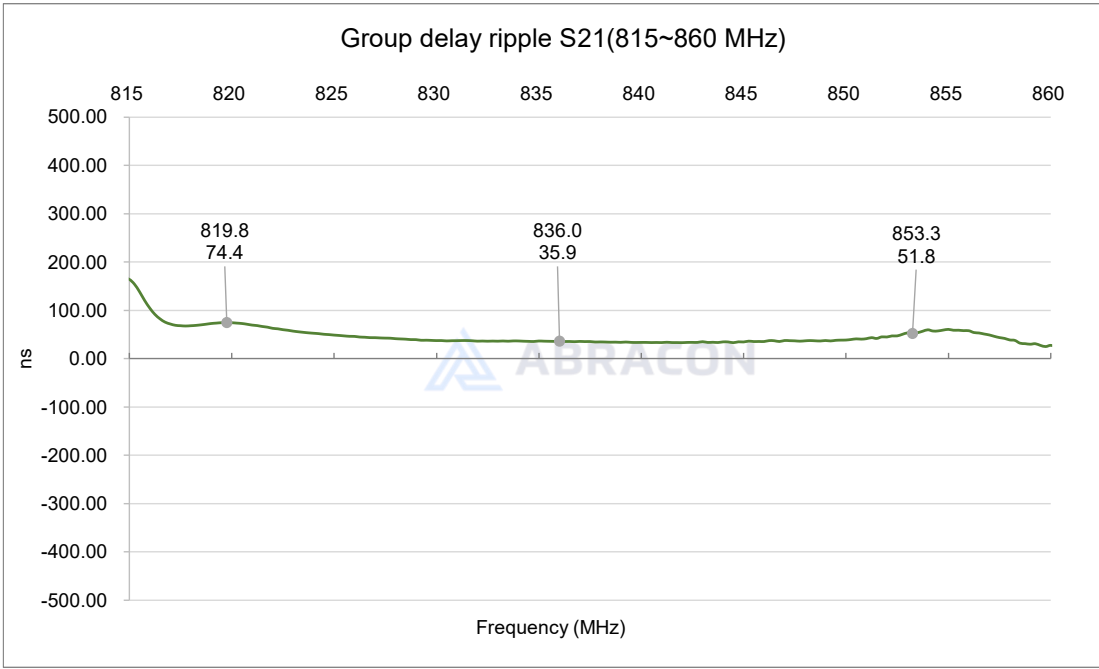


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Group Delay Ripple



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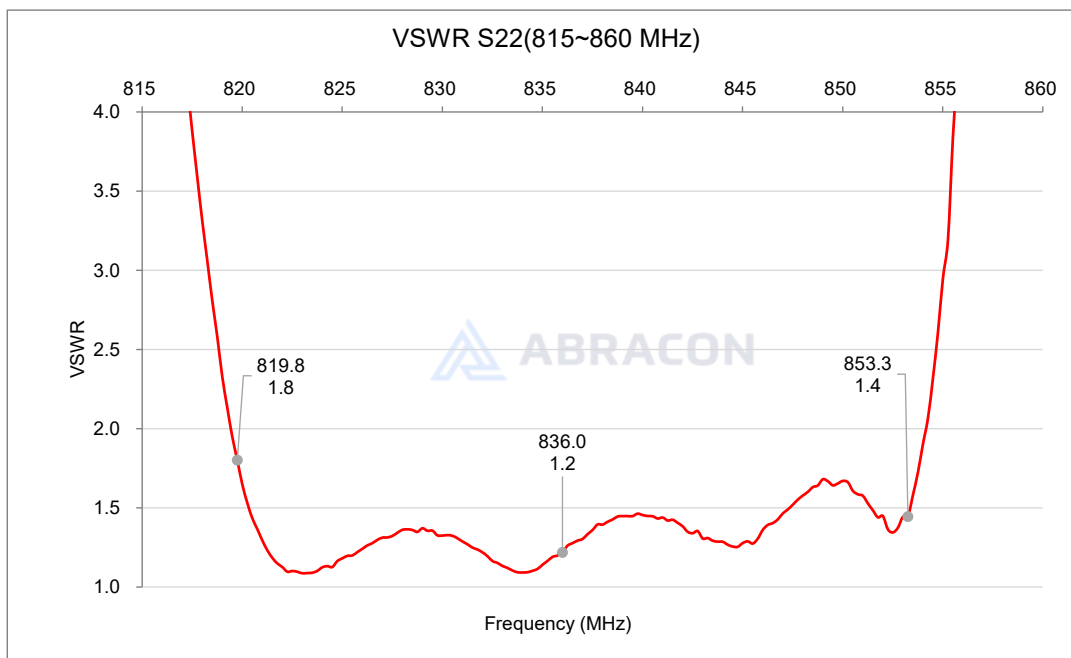
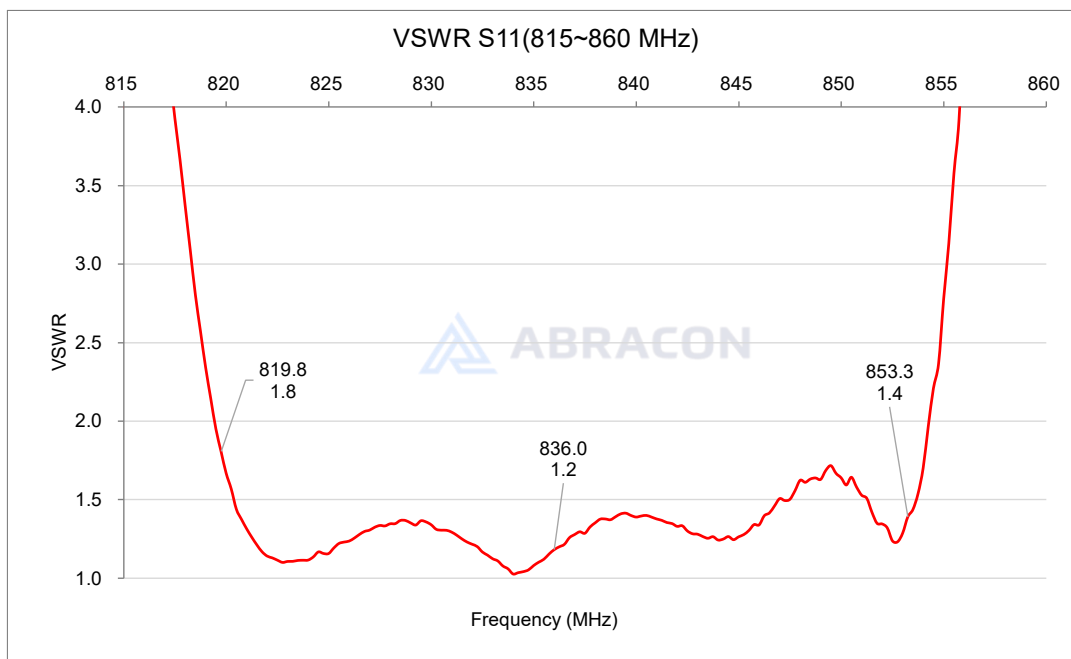


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VSWR (S11 & S22)



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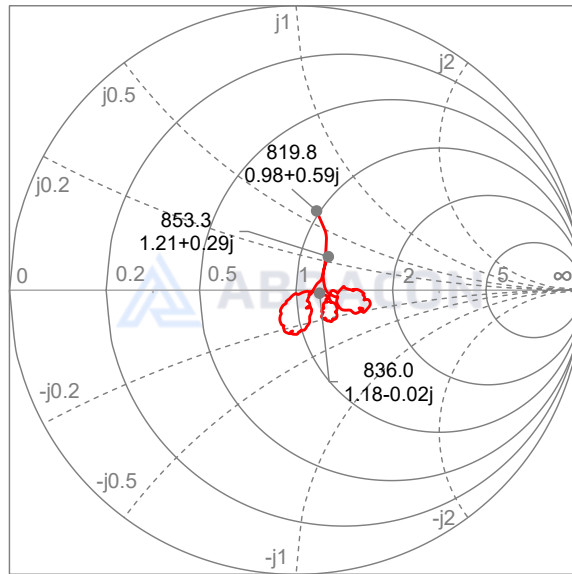
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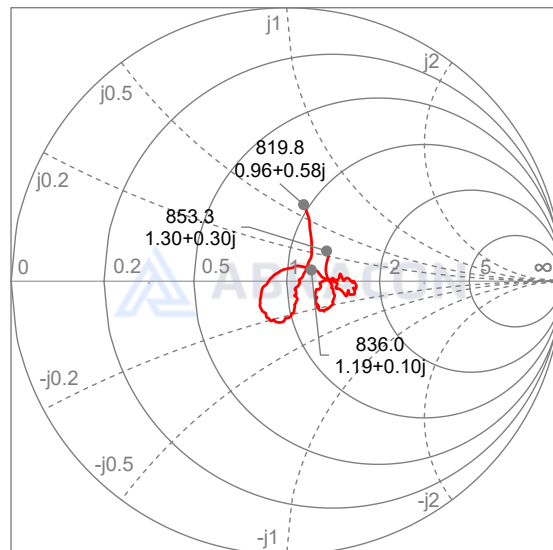
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Smith Chart (S11 & S22)

Smith chart S11 (819~853MHz)



Smith chart S22 (819~853MHz)



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Reflow Profile [JEDEC J-STD-020]

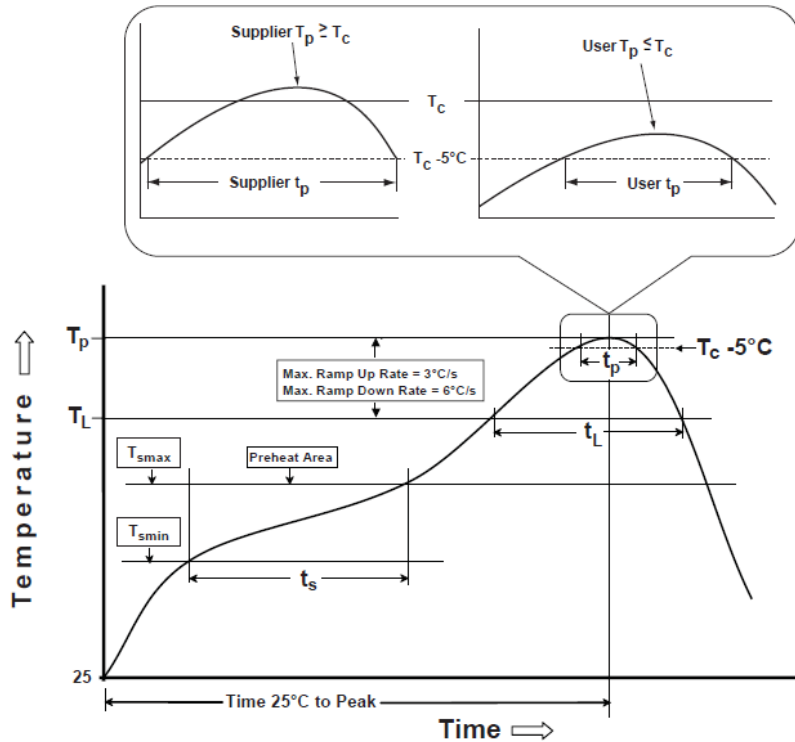


Table 1

SnPb Eutectic Process
Classification Temperatures (T_C)

Package Thickness	Volume mm ³ <350	Volume mm ³ ≥350
<2.5 mm	235 °C	220 °C
≥2.5 mm	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
<1.6 mm	260 °C	260 °C	260 °C
1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
>2.5 mm	250 °C	245 °C	245 °C

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Preheat / soak		
Temperature minimum (T_{smin})	100°C	150°C
Temperature maximum (T_{smax})	150°C	200°C
Time (T_{smin} to T_{smax}) (t_s)	60 - 120 sec.	60 - 120 sec.
Average ramp-up rate (T_{smax} to T_p)	3°C/sec. max	3°C/sec. max
Liquidous temperature (T_L)	183°C	217°C
Time at liquidous (t_L)	60 - 150 sec.	60 - 150 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.	30 sec.
Ramp-down rate (T_p to T_{smax})	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 supplier minimum and a user maximum.

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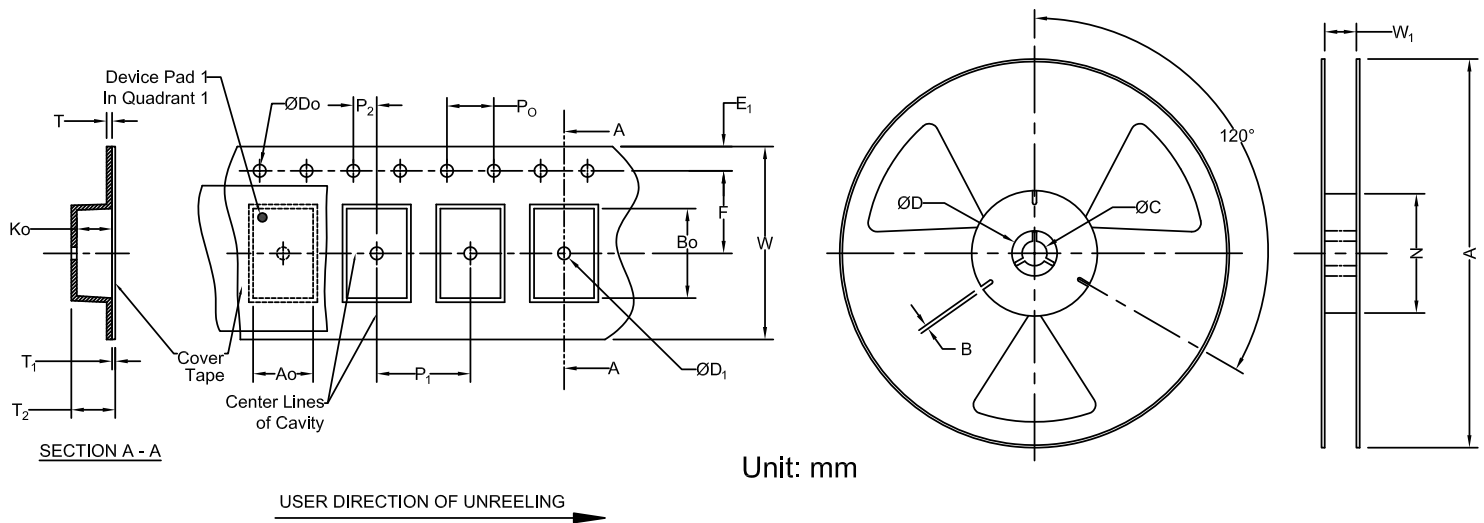
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Packaging

Tape & Reel Dimension



Carrier Tape Specifications (mm)

E1	P0	F	P1	W	A0	B0	K0	Reel Qty
1.75 ± 0.1	4.0 ± 0.1	5.5 ± 0.10	8.0 ± 0.1	12.0 ± 0.3	3.4 ± 0.1	3.4 ± 0.1	1.4 ± 0.1	2,500

Reel Specifications (mm)

A	W ₁	N	C
330 ± 1.0	12.0 ± 1.0	62 ± 1.0	13 ± 0.5

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