

# UWB: 6.24 – 8.24 GHz SMD LTCC Filter



**ABSGS4C7-CDGM3B8M**

Request Samples



Check Inventory



2.00 x 1.25 x 0.95mm  
RoHS Compliant  
MSL Level = 1

## Features

- Wide Band BPF
- Low loss of 2.5 dB
- Compact package size
- Max power rating of 3W
- Group delay < 2 ns

## Applications

- UWB (Ultra-Wide Band)
- IoT
- M2M
- Secure car access
- Item Tracking
- Indoor Navigation
- Hands-Free Payment
- Smart Access
- Object Detection

## Product Image



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## Electrical Specifications

Parameter	Min	Typical	Max	Unit	Notes
Frequency Range	6240	-----	8240	MHz	-----
Insertion Loss	-----	-----	-2.7	dB	-----
Return Loss	-----	-----	-10	dB	-----
Group Delay Ripple	-----	-----	1.0	ns	-----
Group Delay	-----	-----	3.0	ns	-----
Attenuation	-----	-----	-35 -35 -15 -10 -30	dB	DC ~ 5200 MHz 2400 ~ 2500 MHz 5200 ~ 5860 MHz 9000 ~ 9500 MHz 9500 ~ 18000 MHz
Power Capacity	-----	-----	3	W	-----

## Mechanical Specifications

Parameters	Specifications
Filter Dimension	2.00 x 1.25 x 0.95 mm
Mounting Type	SMD Mount
Material Type	Dielectric Filter
Technology	LTCC
In/Output Terminals	Ag + Ni + Sn
Ground Base	Ag+ Ni + Sn

## Environmental Specifications

Parameters	Specifications
Operating Temperature Range	-40°C ~ +105 °C
Storage Temperature Range	-40°C ~ +105 °C
MSL level	1
ESD	N/A
Temperature range	25±5 °C
Relative Humidity range	90~95%RH & <85%RH



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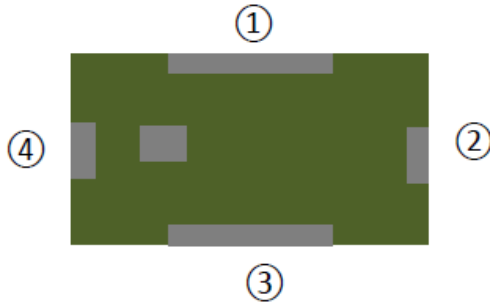


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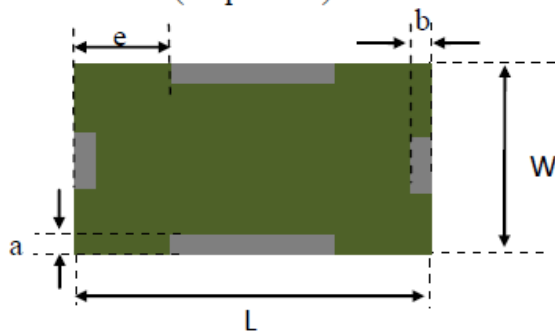
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## Package Dimensions

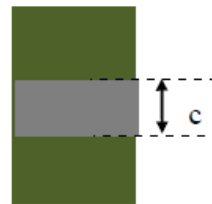


Number	Terminal Name
①	GND
②	OUT
③	GND
④	IN

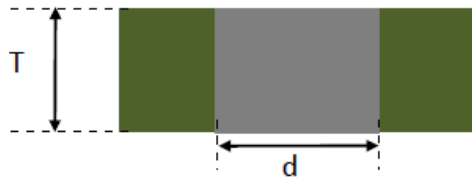
( Top View )



( Bottom View )



( Side View )



( Side View )

Symbol	L	W	T	a	b	c	d	e
Dimension (mm)	2.0±0.15	1.25±0.10	0.95±0.10	0.25±0.10	0.25±0.1	0.3±0.10	1.3±0.10	0.35±0.10

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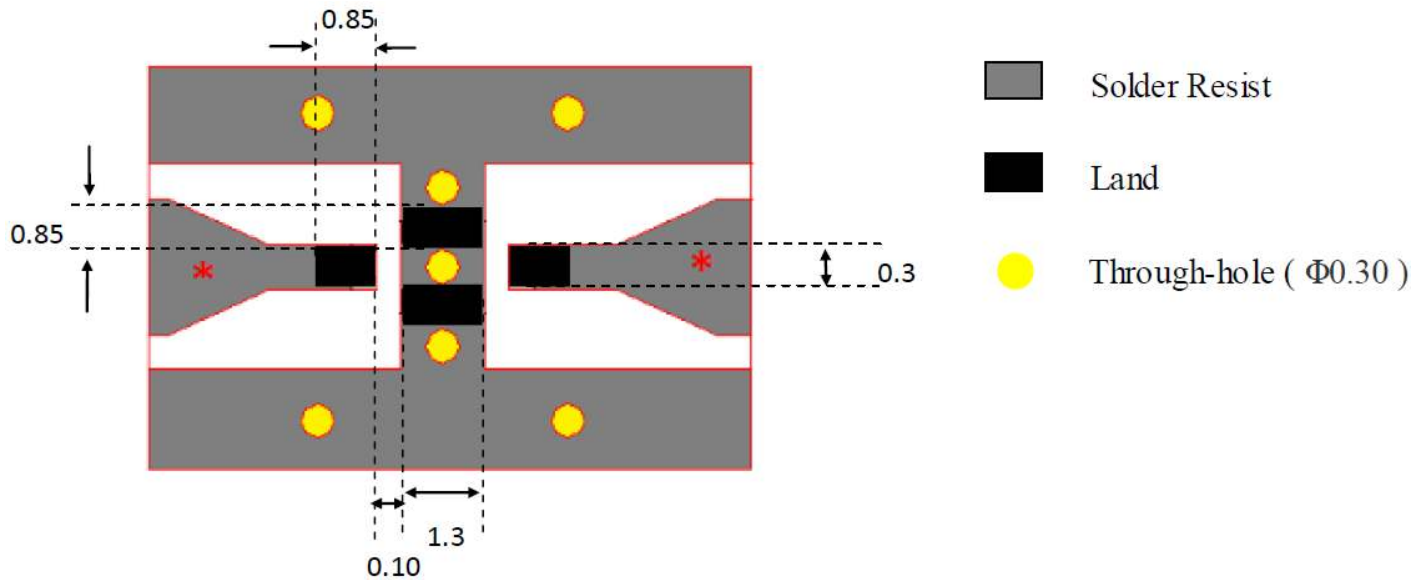


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## Footprint



\*Note: Line Width Should be designed to match 50  $\Omega$  characteristic impedance, depending on PCB material and thickness

Unit: mm

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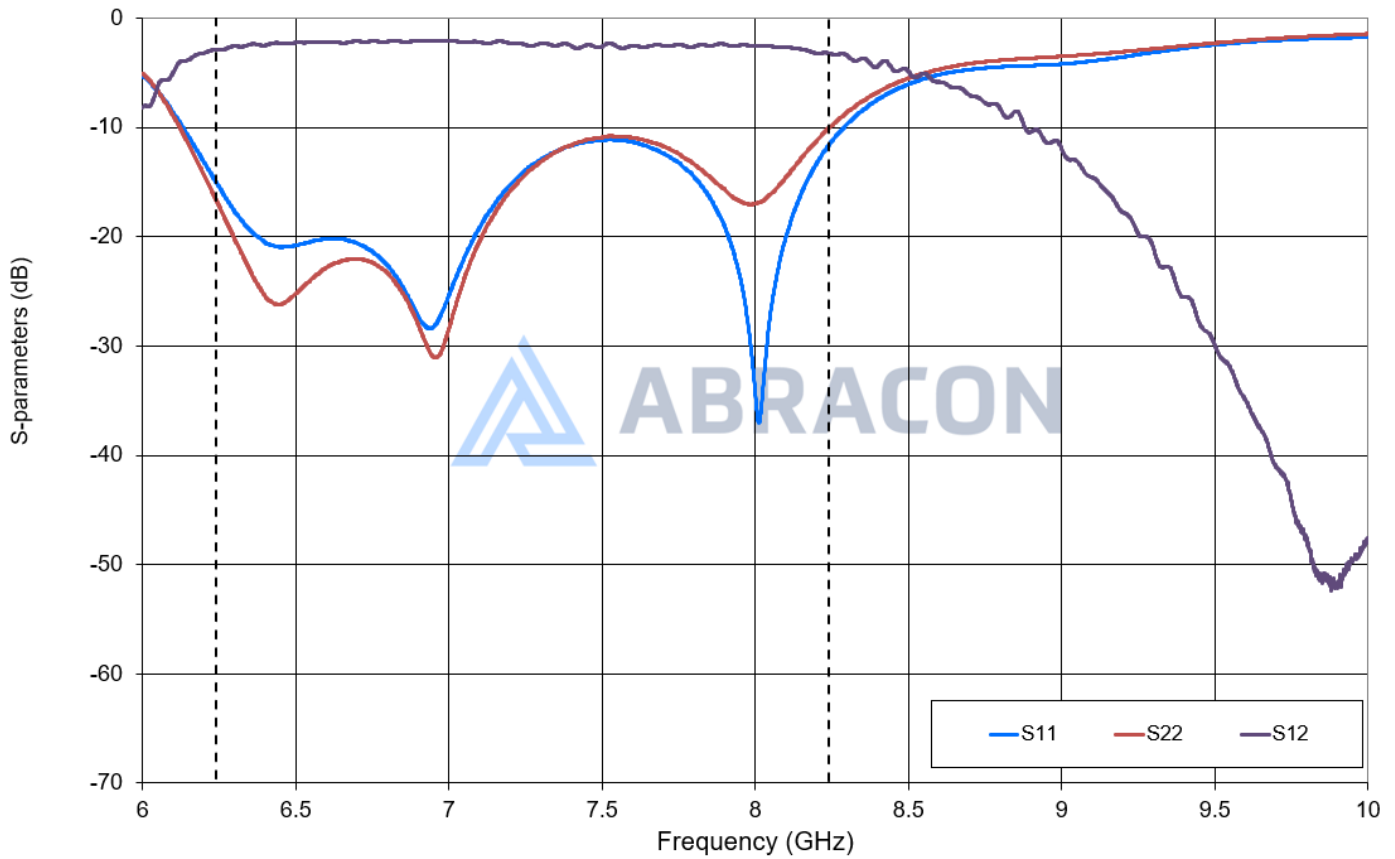
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## Impedance Characteristics [Narrowband]

**S-parameters**



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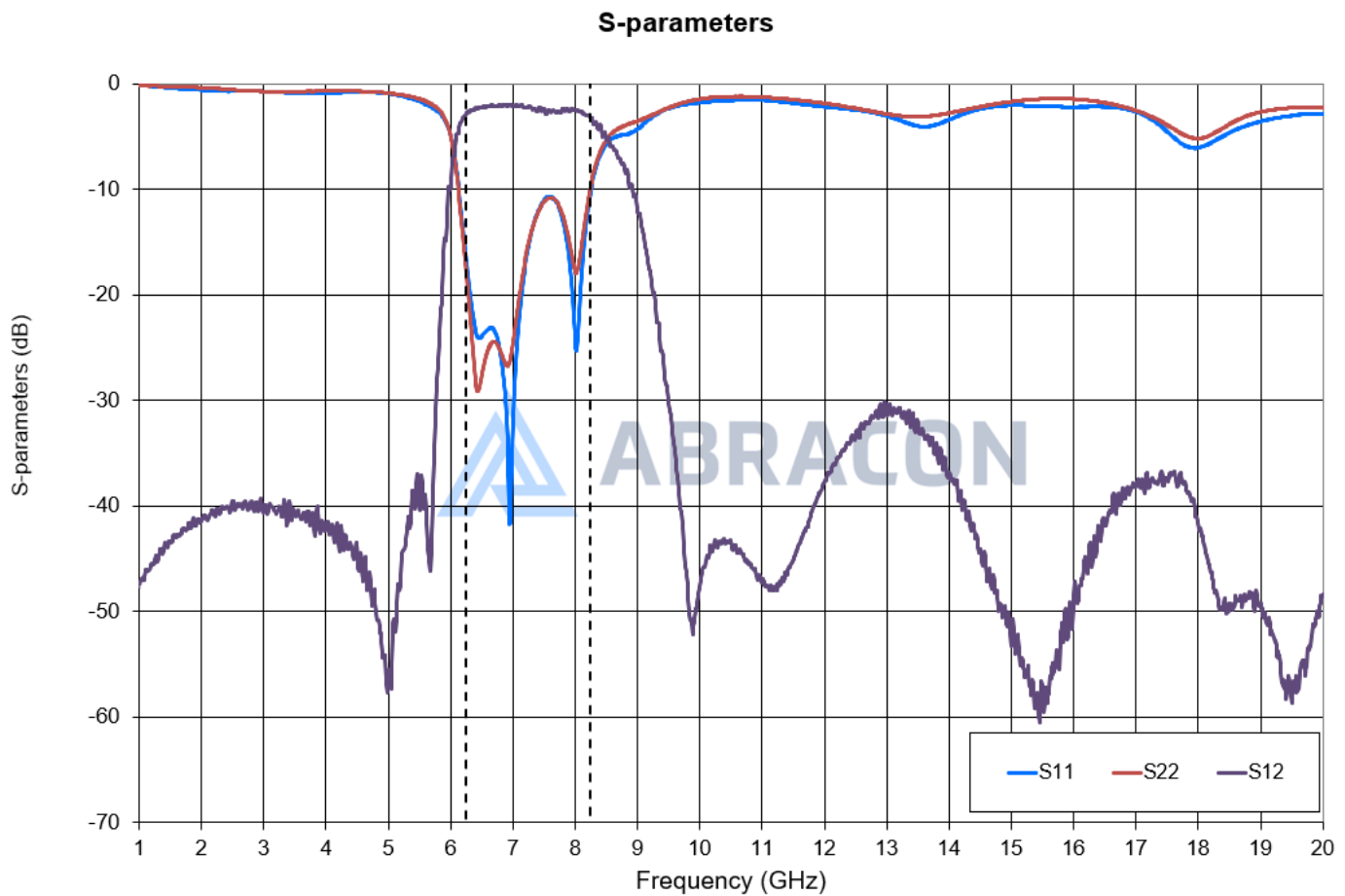


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## Impedance Characteristics [Wideband]



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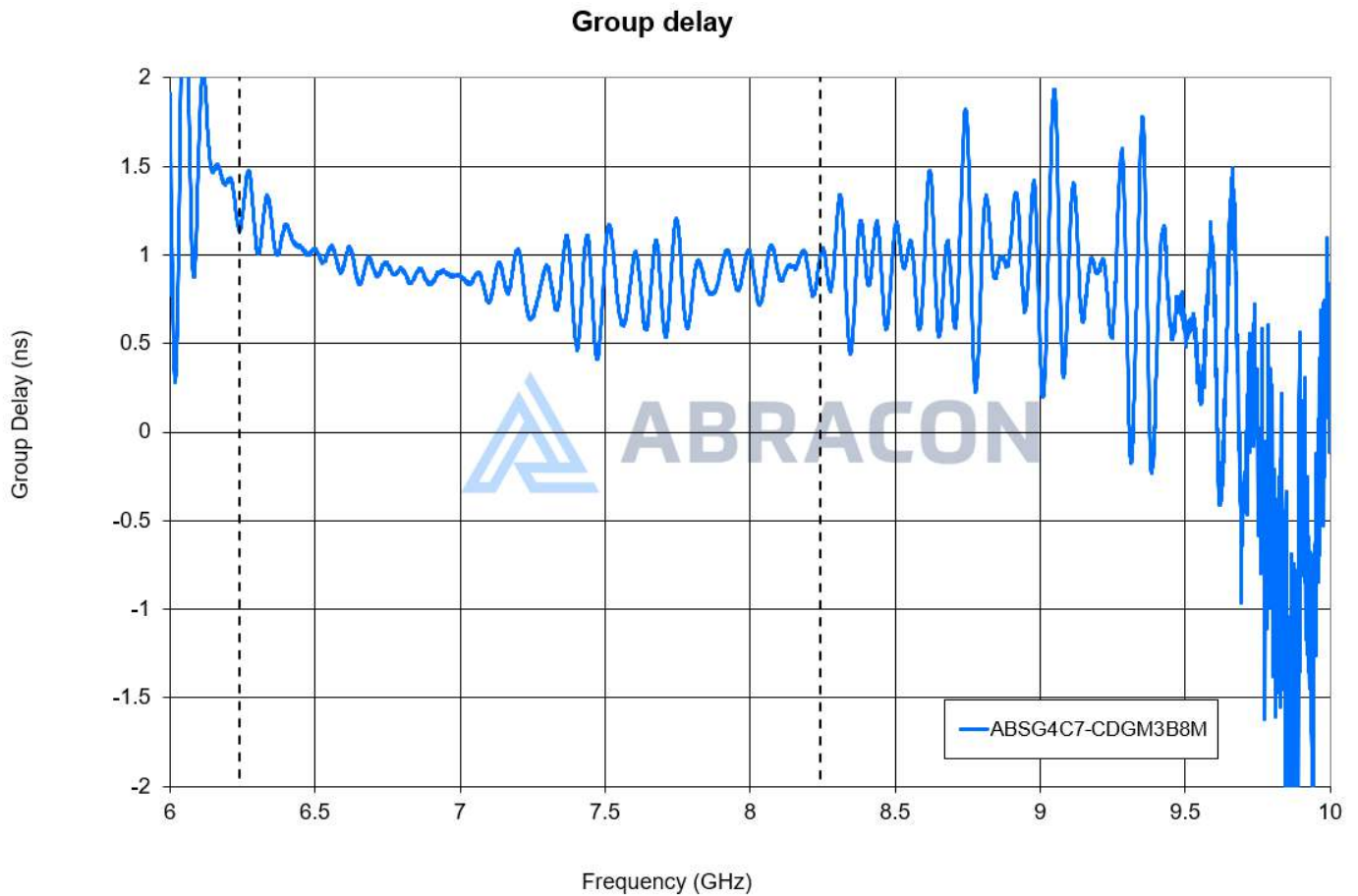


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## Group Delay Characteristics [Narrowband]



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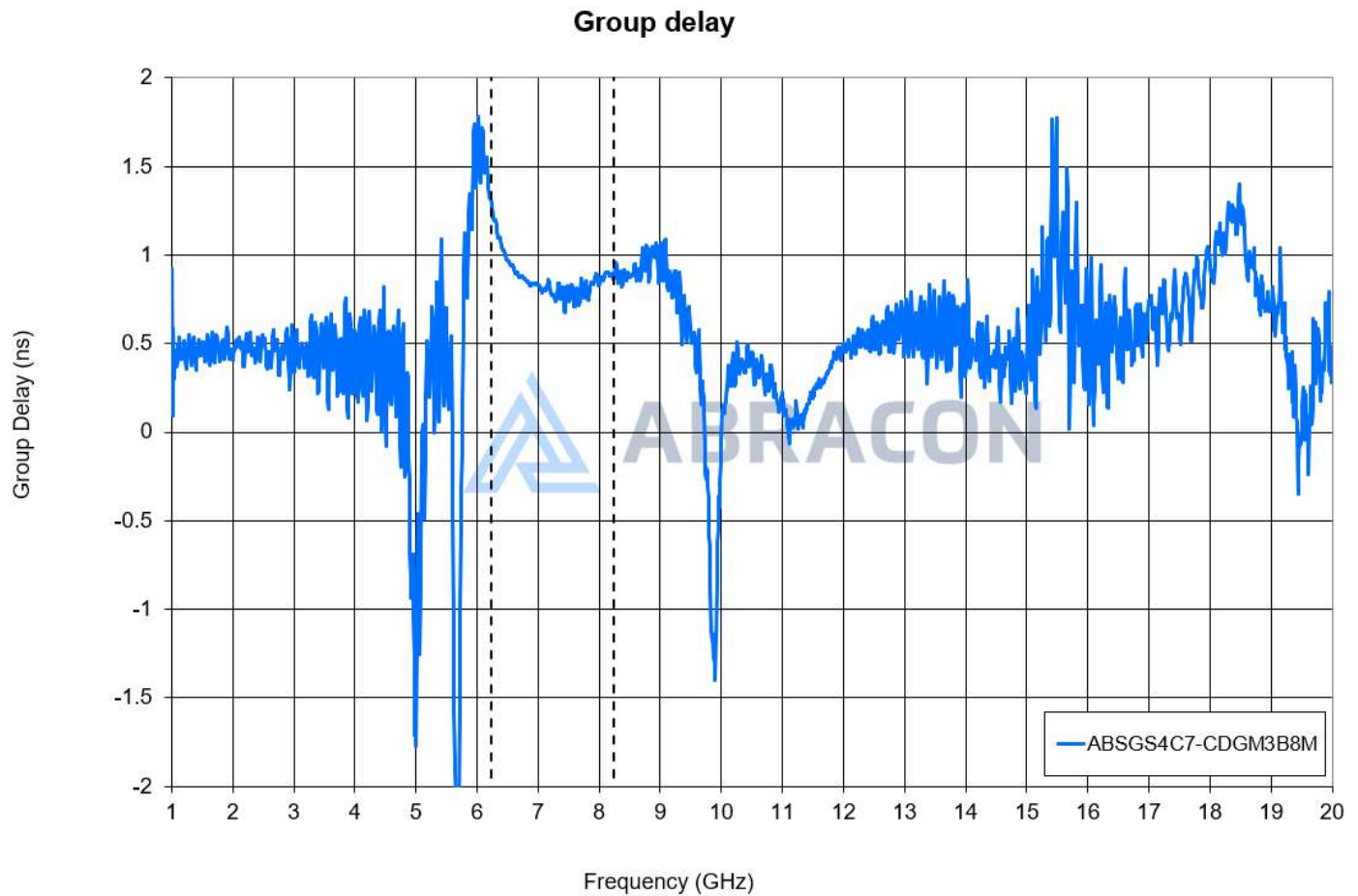


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## Group Delay Characteristics [Wideband]





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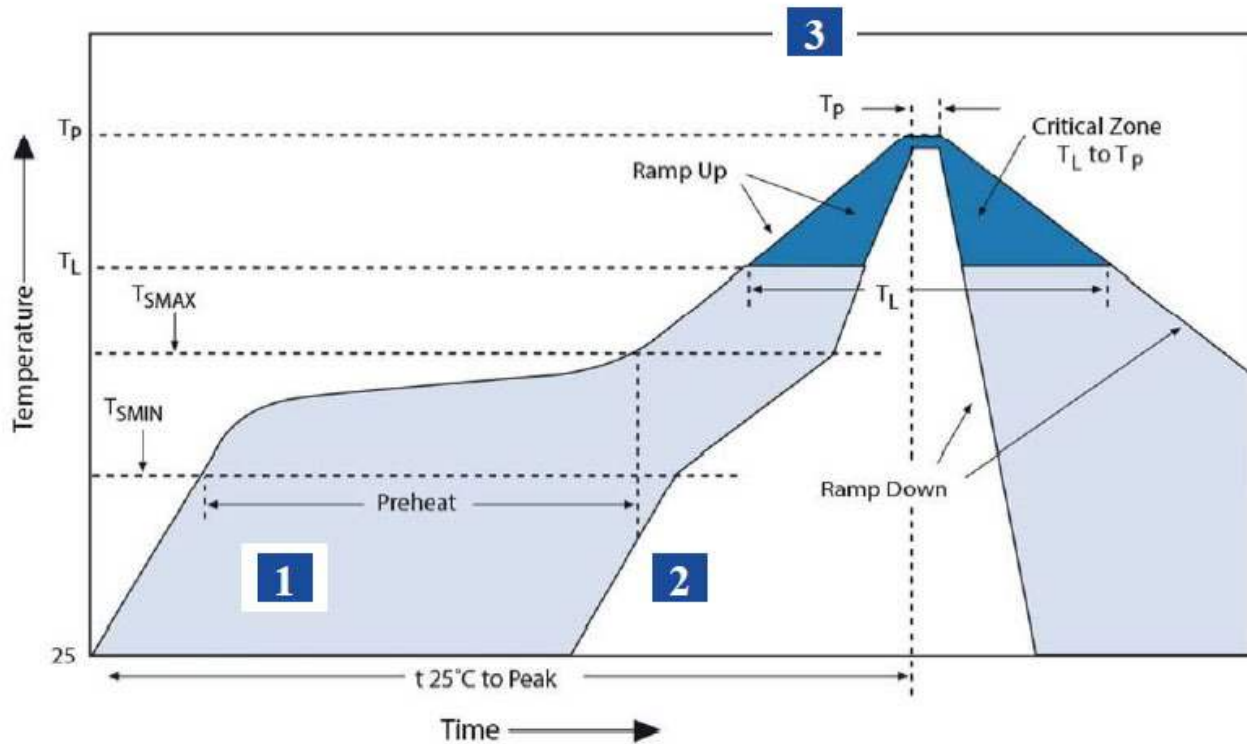


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## Soldering Profile: Reflow



Zone	Description	Temperature	Time
1	Preheat / Soak	$T_{SMIN} \sim T_{SMAX}$ 160 – 180 °C	60 ~ 120 sec
2	Reflow	$T_L$ 220 °C	30~40 sec
3	Peak heat	$T_P$ 265 °C	5 sec (Max)

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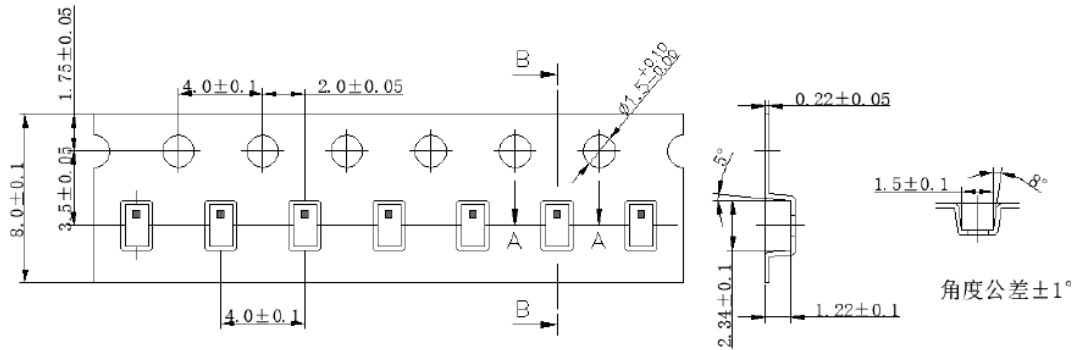
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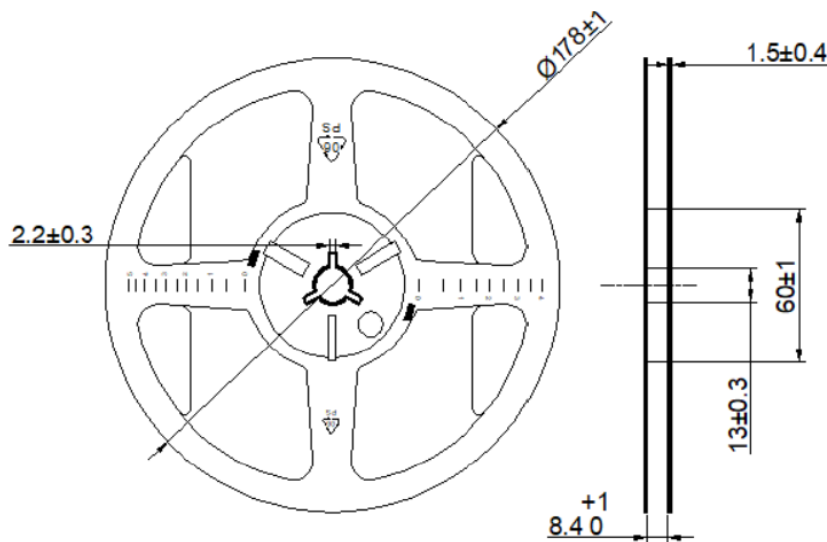
## Packaging and Dimensions

### 1. Plastic Tape



Reserve a length of 200mm for the trailer of the carrier and 200 mm for the leader of the carrier and further 200mm at least of cover tape at the leading part of the carrier.

### 2. Reel (4000 pcs/Reel)



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