



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Description: LTCC Filter 1700 ~ 2700(2200)MHz SMD 1.6x0.8 mm (1000MHz BW)

TST Part No.: TL0029A

Customer Part No.: _____

Customer signature required
Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: _____ Hongpu Lin *Hong Pu Lin*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2019/04/18

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the change



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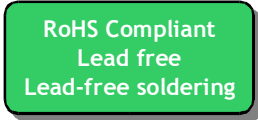
LTCC Filter 1700 ~ 2700(2200) MHz SMD 1.6x0.8 mm (1000MHz BW)

MODEL NO.: TL0029A

REV.1

A. MAXIMUM RATING:

1. Operating temperature range: -40 °C to +85 °C
2. Storage temperature range: -40 °C to +85 °C
3. Moisture Sensitive Level: Level 1 (MSL1)



Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

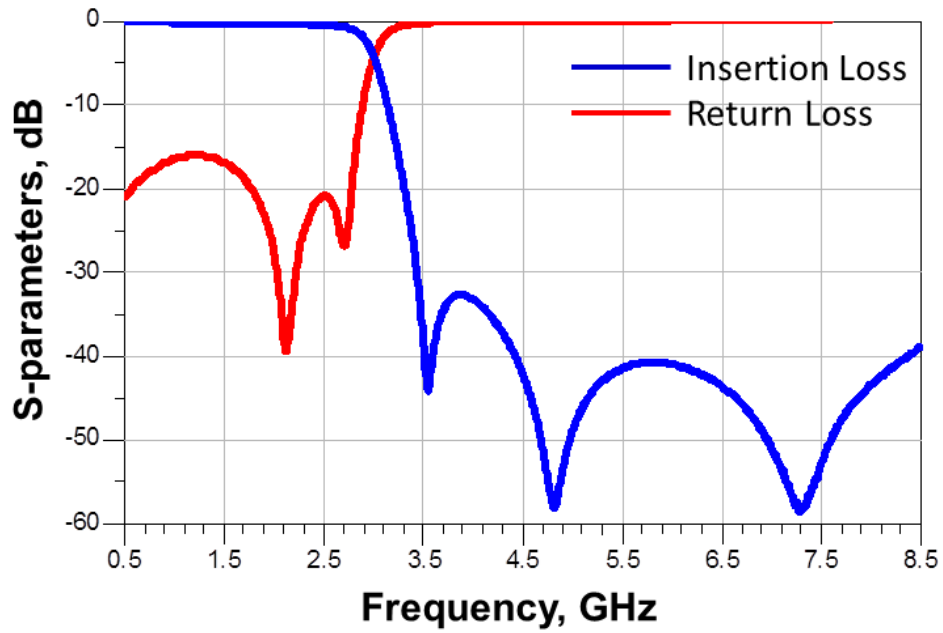
Source impedance (unbalanced) : $Z_s = 50 \Omega$

Load Impedance (balanced) : $Z_L = 50 \Omega$

Item		Unit	Spec
Frequency Range		MHz	1700 ~ 2700(2200)
Insertion loss at 25°C	1700 ~ 2170 MHz	dB	0.5 Max
	2170 ~ 2500 MHz	dB	0.65 Max
	2500 ~ 2700 MHz	dB	0.9 Max
Insertion loss at -40 ~ +85°C	1700 ~ 2170 MHz	dB	0.6 Max
	2170 ~ 2500 MHz	dB	0.75 Max
	2500 ~ 2700 MHz	dB	1.05 Max
Attenuation	3400 MHz	dB	20 Min
	3400 MHz ~ 5400 MHz	dB	22 Min
	5400 MHz ~ 8100 MHz	dB	25 Min
Return Loss		dB	10 Min
Power capacity		W	3 Max

C. FREQUENCY CHARACTERISTICS:

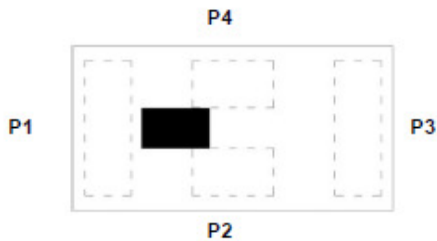
Frequency Response



D. Outline Drawing:

CONSTRUCTION

Top view

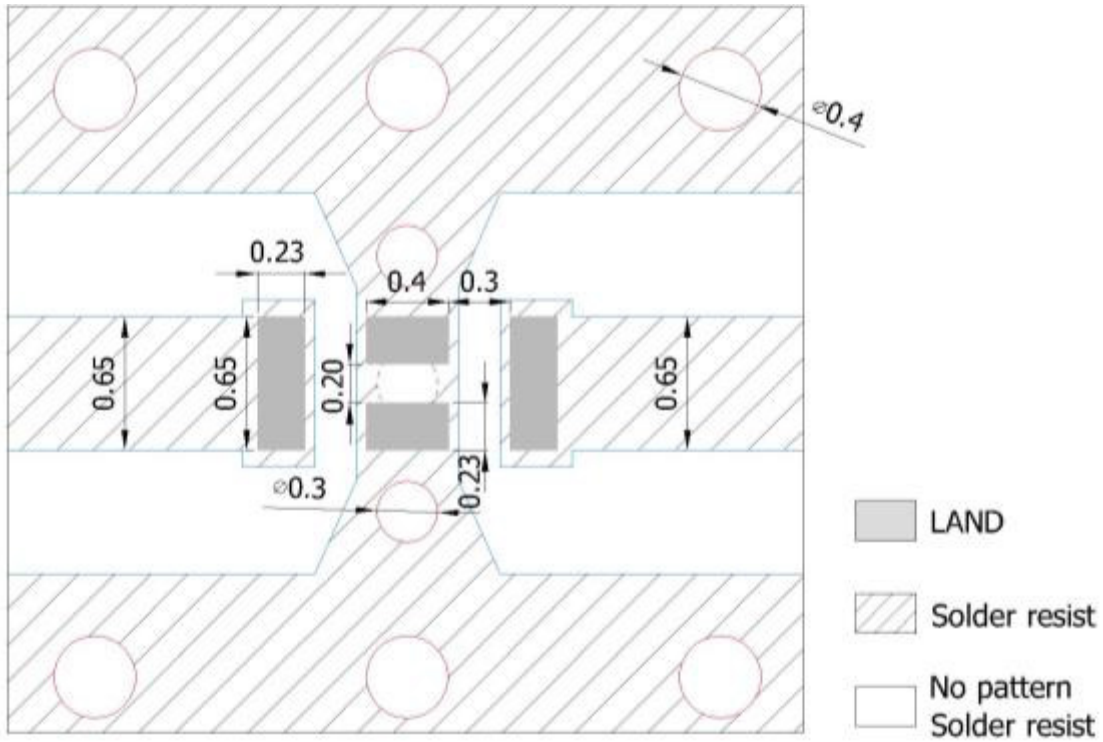


PIN	Connection	PIN	Connection
1	Input port	3	Output port
2	GND	4	GND

DIMENSIONS

Figure	Symbol	Dimension (mm)
Top view 	L	1.60 ± 0.15
	W	0.80 ± 0.15
	T	0.65 max.
Side view 	A	0.23 ± 0.05
	B	0.40 ± 0.10
Bottom view 	C	0.30 ± 0.10
	D	0.65 ± 0.10
	E	0.20 ± 0.05
	F	0.23 ± 0.05

E. PCB Footprint:



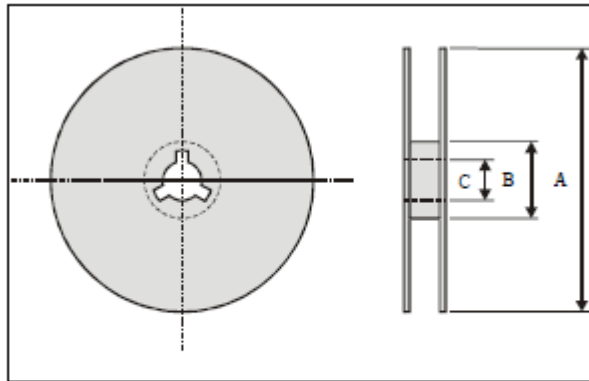
Unit : mm

Line width to be designed to match 50 Ω characteristic impedance, depending on PCB material and thickness.

F. PACKING:

1. REEL DIMENSION (4000 PCS)

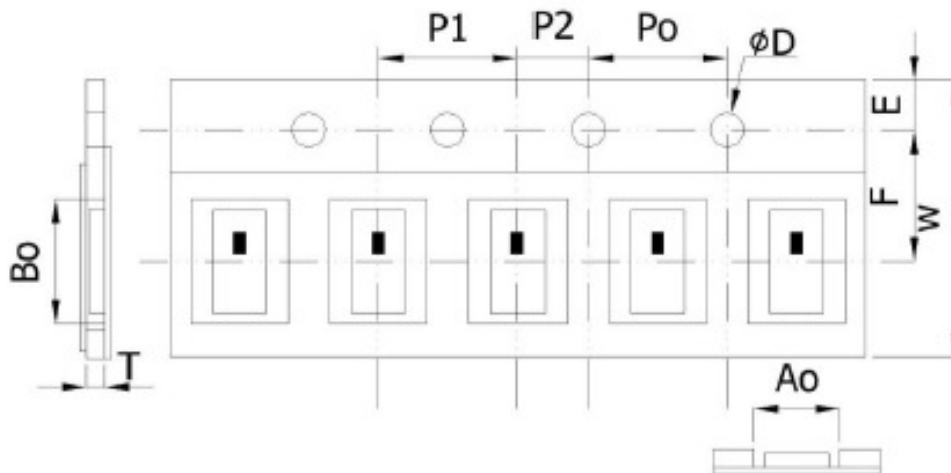
(Please refer to FR-75D10 for packing quantity)



Index	A	B	C
Dimension (mm)	Φ178.0	Φ60.0	Φ13.0

2. TAPE

DIMENSION (unit :mm)



Paper Tape specifications (unit :mm)

Index	Ao	Bo	ΦD	T	W
Dimension (mm)	0.975 ± 0.10	1.76 ± 0.10	1.55 ± 0.05	0.75 ± 0.10	8.0 ± 0.30
Index	E	F	Po	P1	P2
Dimension (mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10

G. RECOMMENDED REFLOW PROFILE:

- 1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
- 2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
- 3. Heating shall be fixed at 220°C for 50~80 seconds and at 245~260°C peak (min. 10sec).
- 4. Time : 2 times.

