



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

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## Product Specifications Approval Sheet

Product Description: LTCC Filter 5788 MHz SMD 2.5x2.0 mm (125MHz BW)

TST Part No.: TL0035A(This part is compliant with AEC-Q200)

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: \_\_\_\_\_ 2019/12/18

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 5788 MHz SMD 2.5X2.0 mm (125 MHz BW)

MODEL NO.:TL0035A

REV.1

### A. MAXIMUM RATING:

1. Operating temperature range: -55 °C to +125 °C
2. Storage temperature range: -55 °C to +125 °C
3. Power capacity: 2W max.
4. Impedance (Unbalanced) : 50Ω
5. Moisture Sensitive Level: Level 1 (MSL1) (Refer to : IPC/JEDEC J-STD-020)

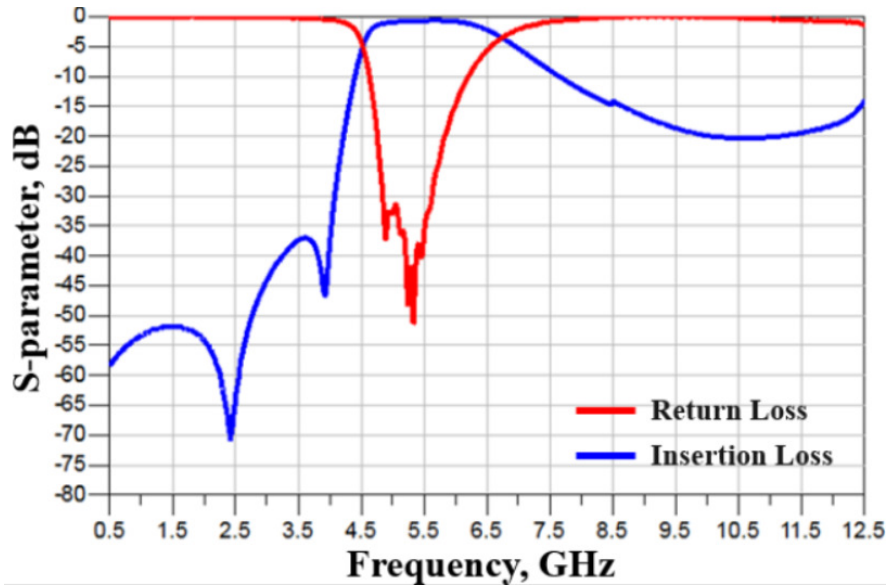


Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

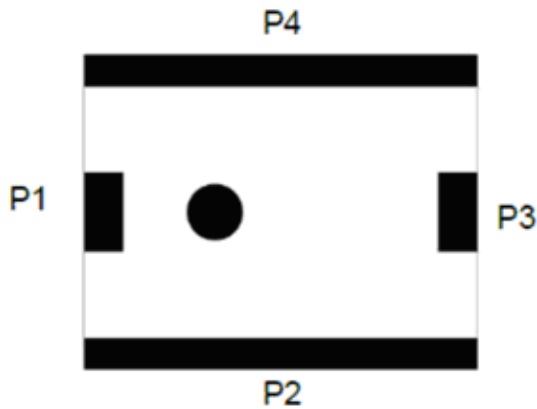
Parameters	Specifications	Remark
Center Frequency (Fc)	5788.0	
Pass Band Width (BW)	5725.5 ~ 5850.5 MHz	
Insertion Loss in BW	1.2 dB max.at +25 °C. 1.5 dB max.at -55 ~ +125 °C.	
Attenuation	50 dB min. @ 824.0 ~ 1910.0 MHz 15 dB min. @ 9880.0 ~ 11700.0 MHz	
Ripple	1.0 dB max.	
VSWR	2.0 max.	
Impedance (Unbalanced)	50Ω	
Power capacity	2W max.	
Moisture Sensitivity Levels	MSL is LEVEL1 (Refer to : IPC/JEDEC J-STD-020)	
<b>Operating &amp; Storage Condition (Component)</b> Operation Temperature Range: -55 ~ +125 °C. Storage Temperature Range: -55 ~ +125 °C.		
<b>Storage Condition before Soldering (Included packaging material)</b> Storage Temperature Range: +5 ~ +40 °C. Humidity: 30 to 70% relative humidity		

**C. FREQUENCY CHARACTERISTICS:**



**D. OUTLINE DRAWING:**

**CONSTRUCTION**

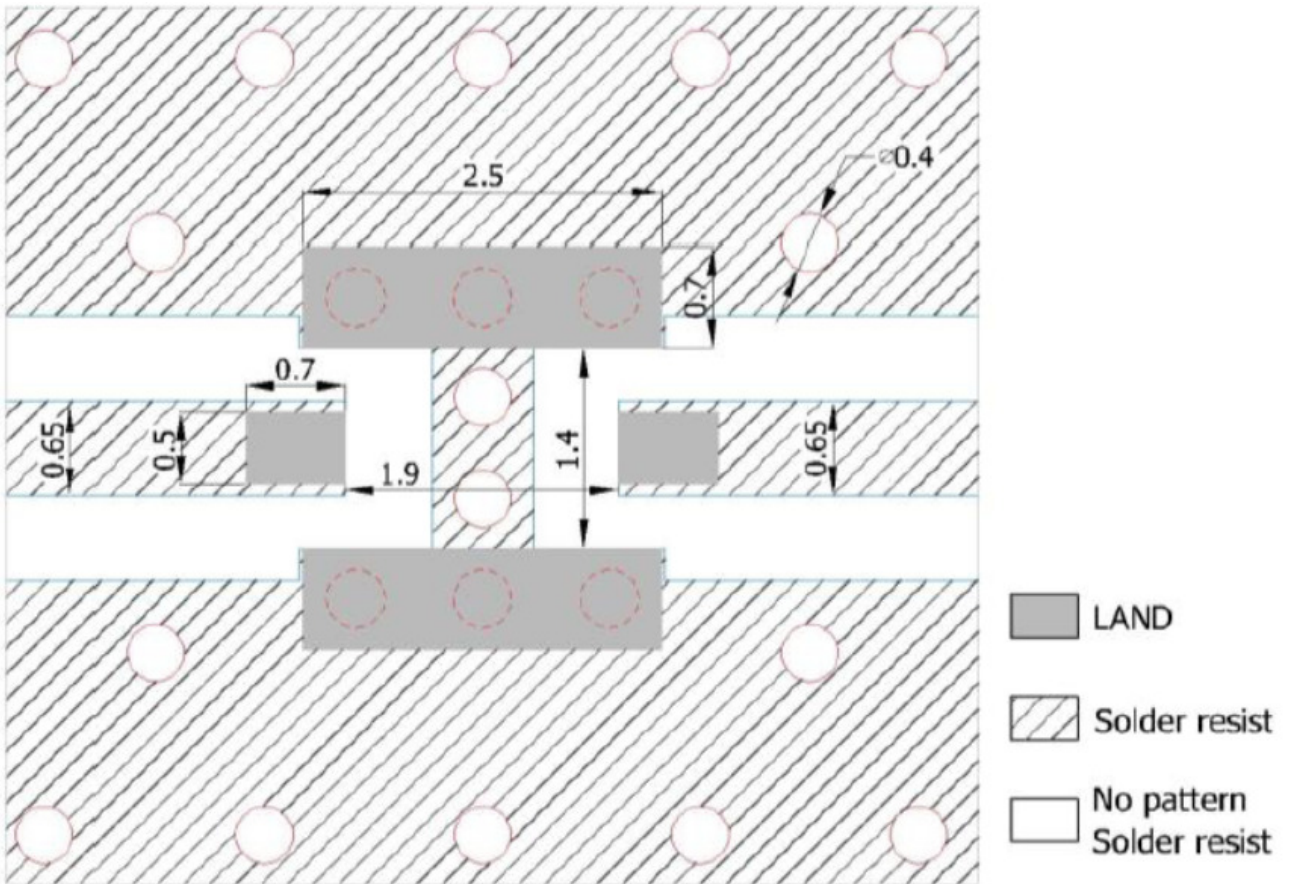


PIN	Definition
P1	Input
P2	GND
P3	Output
P4	GND

**DIMENSIONS**

Figure	Symbol	Dimension (mm)
Top view	L	2.50 ± 0.2
	W	2.00 ± 0.2
	T	0.90 ± 0.1
Bottom view	A	0.20 ± 0.2
	B	0.55 ± 0.2
Side view	C	0.50 ± 0.20
	D	0.20 ± 0.2
	E	0.20 ± 0.2

**E. PCB FOOT PRINT:**

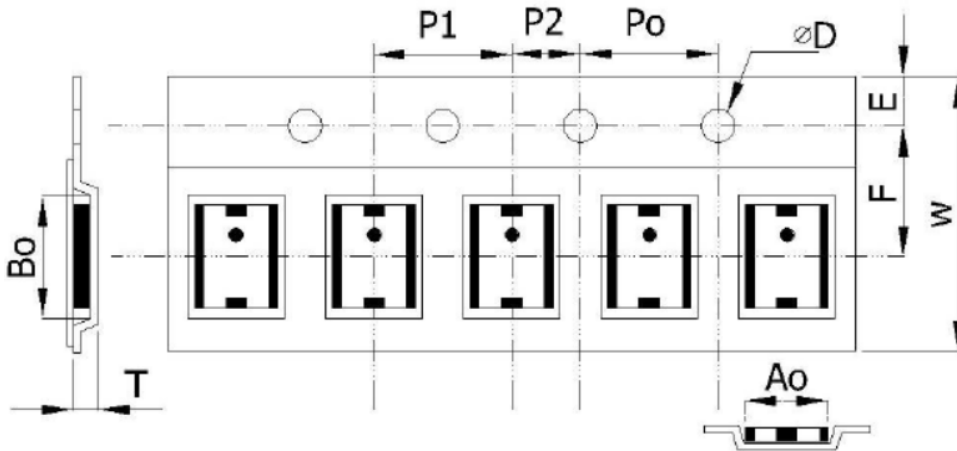


Unit: mm

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

**F. PACKING:**

**1. TAPE DIMENSION**

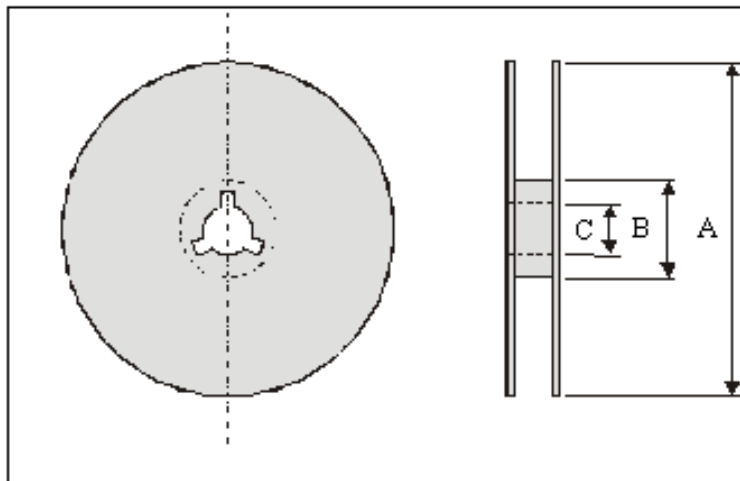


**Plastic Tape specifications (unit: mm)**

Index	$A_o$	$B_o$	$\phi D$	T	W
Dimension (mm)	$2.27 \pm 0.10$	$2.74 \pm 0.10$	$1.55 \pm 0.05$	$1.18 \pm 0.05$	$8.00 \pm 0.10$
Index	E	F	$P_o$	P1	P2
Dimension (mm)	$1.75 \pm 0.10$	$3.50 \pm 0.05$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.05$

**2. REEL DIMENSION**

Taping Quantity: 2000 pieces per 7" reel



Index	A	B	C
Dimension (mm)	$\Phi 178.0$	$\Phi 60.0$	$\Phi 13.0$

### 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 260°C +0/-5°C peak (20~40sec).
4. Time: 2 times.

