

SPECIFICATION FOR CERAMIC FILTER

JIA KANG P/N : LTS5.85MDB

LTS5.85MDB-TF

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CERAMIC FILTER SPECIFICATION

1.SCOPE

This specification is applied to ceramic filter used for SIF unit.

2.SPECIFICATION NO:

3.PART NUMBER: LTS5.85MDB

4.ELECTRICAL SPECIFICATIONS

No	Item	Requirements
4.1	Nominal Center Frequency (Fn)	5.85MHz
4.2	3 dB Band Width	±110KHz min
4.3	20dB Band Width	750KHz max
4.4	Insertion Loss	6.0dB max.
4.5	Spurious Response 0—5.85MHz 5.85—7.0MHz 7.0—10.0MHz	30dB min. 15dB min. 30dB min
4.6	Withstanding Voltage	DC 50V, 1 min
4.7	Insulation Resistance	100M Ω □1min□50V)
4.8	Operation Temperature	-20□--+80□
4.9	Input/Output Impedance	600 Ω

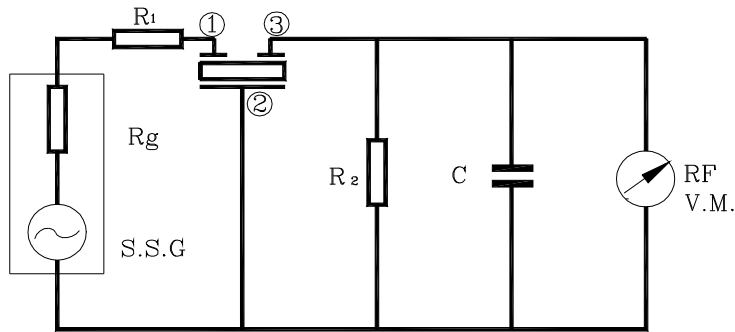
5.MEASUREMENT

5.1 Measurement Condition

Parts shall be measured under a condition (Temp:5-35□.Humi: 45-85%)
Unless any necessity to measure under a standard condition (Tem:20± 2
□ ,Humi :65± 5%) is occurred.

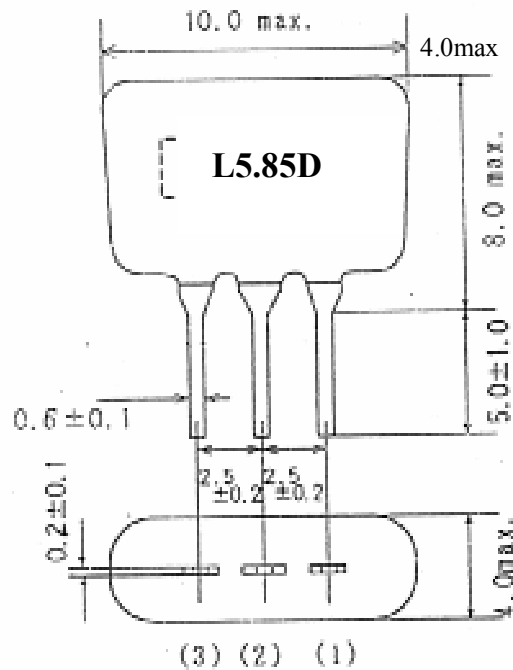
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5.2 MEASUREMENT CIRCUIT



$R_g + R_1 = R_2 = \text{Input/output Impedance}$
 $C = 10\text{Pf}$ (Including stray capacitance and input Capacitance of RF voltmeter)

6.0 DIMENSION



- 1 Input
- 2 Ground
- 3 Output

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7. PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

No	Item	Condition of Test	Performance Requirements

7.1	Lead Strength Lead Pulling Lead Bending	Force of 0.5Kg is applied to each lead in axial direction. When force of 0.25Kg to each lead in axial direction, the lead shall be folded up to 90 degree from the axial direction and folded back to the axial direction.	The filter shall show no evidence of damage and shall fulfill all the initial electric characteristics
7.2	Solderability	Dip the filter terminals into the solder bath at $235 \pm 5^\circ\text{C}$ for 5 ± 0.5 sec.	The solder shall coat at least 90% of the surface of terminal
7.3	Vibration	Filter shall be measured after being applied vibration as below Vibration Freq: 600 to 3,300r.p.m Amplitude: 1.5mm Direction: 3 axial Time: 1 hour /each direction	It shall fulfill the specifications in Table 1.
7.4	Random drop	Filter shall be measured after 3 times random dropping from the height of 70cm to the wood plate	
7.5	Resistance to Solder Heat	Dip the filter terminals no closer than 2 mm into the solder bath at $350 \pm 5^\circ\text{C}$ for 3 ± 0.5 sec, filter shall be measured after being placed in natural condition for 1 hour.	
7.6	Temperature characteristic	Filter shall be measured within -20°C to 80°C temperature range. Temperature coefficient (center frequency of 3db bandwidth) Variation of insertion loss	Ref.To value of: $+20^\circ\text{C} : \pm 100\text{ppm}/^\circ\text{C}$ max $\pm 2\text{db}$
7.7	Humidity	Keep the filter at $40 \pm 2^\circ\text{C}$ and 90-95% RH for 96 hours. Then release the filter into the room condition for 1 hour prior to the measurement.	It shall fulfill the specifications in Table 1.
7.8	Life test High Temperature	After being placed in a chamber (temp: 80°C) for 1000 hours, filter shall be measured after being placed in natural condition for 1 hour.	It shall fulfill the specifications in Table 1.

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7. PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS (Continued from the preceding page)

No	Item	Condition of Test	Performance Requirements
7.9	Life test Low Temperature	After being placed in a chamber (temp:20℃)for 1000hours,filter shall be measured after being placed in natural condition for 1 hour.	It shall fulfill the specifications in Table 1.
7.10	Thermal shock	After temperature cycling of -55℃ (30min)to +85℃ (30 min) was performed 5times,filter shall be measured after being placed in natural condition for 1 hour	

TABLE1

Item	Specification
Insertion Loss Shift	± 2 dB max.
3 dB Band Width	± 25KHz
20 dB Band Width	±40KHz

8.NOTICE

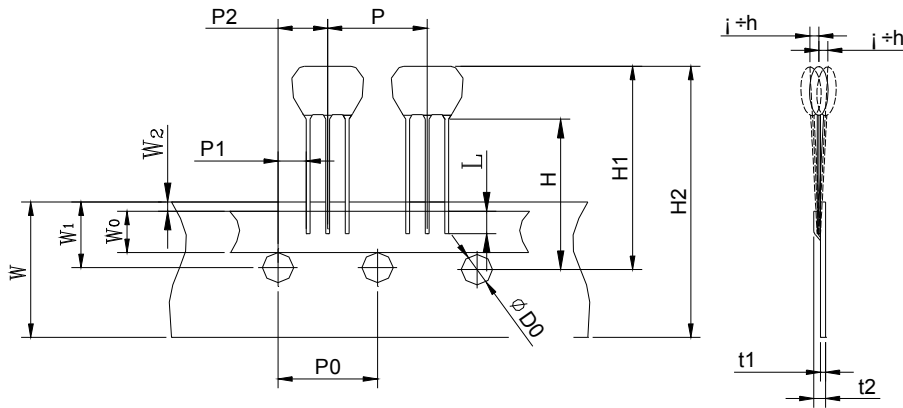
□ This specification limits the quality of the components as a single unit. Please make sure that the component is evaluator and confirmed the drawing when it is mounted to your product.

□ we can not warrant against mishaps caused by any use of this product that deviated from intended use as described in this drawing.

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9.Taping

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MARK	SIZE(mm)
P	12.7±0.5
Po	12.7±0.2
P1	3.85±0.5
P2	6.35±1.3(include the slant of product)
Wo	5.5±0.5
W1	9.0±0.5
H	18.0+0.5, -1.0
H1	27.0 max
H2	36.0 max
$\phi D0$	4.0±0.2
t1	0.6±0.2
t2	1.5 max
□h	1.0 max

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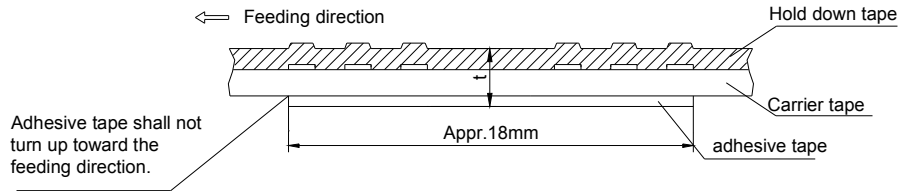
9.1 Stipulation of Products Alignment

9.1.1. Dropout of parts shall be confined to no more than 3 continuous parts.

- 9.1.2. Dropout of parts on a reel shall be less than 0.25% of net quantity.
- 9.1.3. All products shall face their marking side toward the hold down tape.
(Upward in the figure below in this page)

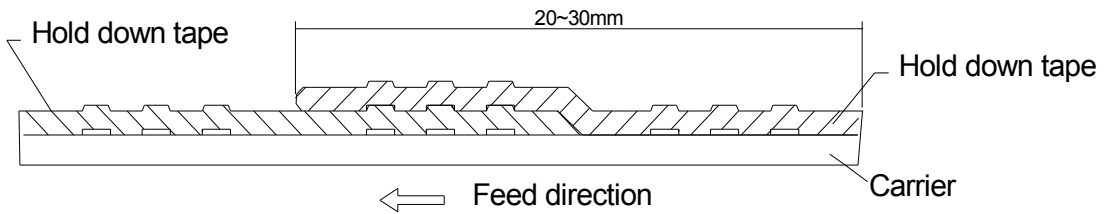
9.2 Tape Connection

9.2.1. in the case of a carrier tape running out



Connect the back face of tapes together with a adhesive tape
Total thickness of tape t:1.05mm max.

9.2.2. In the case of a hold down tape running out



Overlap the hold down tape for connection
Total thickness of tape t:1.05mm max.

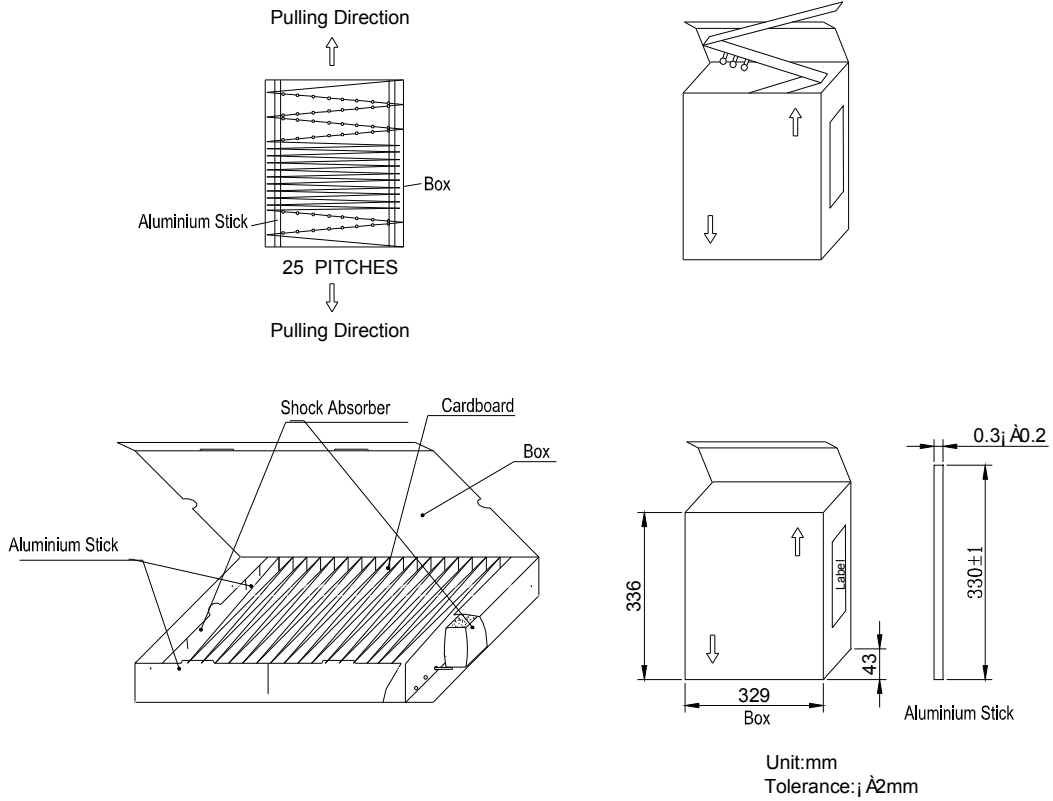
9.2.3. In the case of connecting both carrier tape and hold down tape

Connect both carrier tape and hold down tape together with adhesive tape
Without pulling out the products.

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10. Flat Pack Packaging

10.1 Dimensions of box



10.2 Leader Tape

More than 300mm leader tape with no products shall be provided at both end of the tape.

10.3 Packing Style:

Tape is folded at every 25 pitches in zigzag way, and contained in the box. Aluminum sticks are inserted the third hole from both edge of the tape. Those are used to keep steady state. Shock absorber shall be placed between products and box.

10.4 Packing Quantity:

2000pcs are contained in box.

10.5 Label:

The minimum packaging unit shall be one box. and each box shall have a label which shows part number, inspection number and the number of contents.

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