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SPECIFICATION FOR APPROVAL

SMD Electro-Magnetic Transducer

Part Number	OWMB-1715S-19-120
Note	This item was compliance with the following requirements: 1. RoHS directive
Customer P/N	


Ole Wolff	Signature / Date	Prepared	Checked	Approved

Customer	Signature / Date	Confirmation		

REVISION NOTES:

Date	Rev.	Description of Revision

OLE WOLFF ELEKTRONIK A/S Roedengvej 25 4180 Soroe Denmark TEL: +45 57833830 FAX: +45 57820019	OLE WOLFF ELECTRONICS INC. 1525 McCarthy Blvd, Suite 1093 Milpitas, Ca 95035 USA TEL: +1 408 888 8413	OLEWOLFF ELEKTRONIK GmbH Schulstrasse 15A. DE-25451 Quickborn. Germany TEL: +49 (0) 4106 765900 FAX: +49 (0) 4106 627297	OLEWOLFF ELECTRONICS 3 Bedford Street, Woburn, Bedfordshire MK17 9QB, ENGLAND TEL: +44 (0) 1525 290755 FAX: +44 (0) 1525 290855	OLE WOLFF ELEKTRONIK Yliopistonkatu 26 (P.O.BOX 257) FI-40101 Jyväskylä Finland TEL: +358 14 338 3050 FAX: +358 14 338 3059	OLE WOLFF (ASIA) LTD. Unit B, 19/F., Bold Win Ind. Bldg., No. 16-18 Wah Sing St., Kwai Chung, N.T., H.K. TEL: +852 2424 3274 FAX: +852 2424 2219	OLE WOLFF LTD. 5 Floor, Block G, WenTao Industrial Park, YingRenShi, Bao'an District, Shenzhen, PRC TEL: +86 755 82612542 TEL: +86 755 26406156
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1. SCOPE

THIS SPECIFICATION IS APPLIED TO OLE WOLFF SMD ELECTRO-MAGNETIC TRANSDUCER UNIT OF MODEL: OWMB-1715S-19-120

2. GENERAL REQUIREMENTS

OPERATING TEMPERATURE RANGE: -40°C ~ +105°C

STORAGE TEMPERATURE RANGE: -40°C ~ +120°C

3. MECHANICAL LAYOUT & DIMENSIONS

DIMENSIONS: SHOWN IN FIGURE 3.

WEIGHT: 3.3g

4. ELECTRICAL CHARACTERISTICS

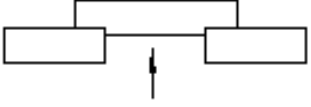
NO.	ITEM	SPECIFICATION
1	RATED VOLTAGE	12V
2	OPERATING VOLTAGE	8~16V
3	RESONANT FREQUENCY	1900Hz
4	COIL RESISTANCE	120 ± 10 Ω
5	*RATED CURRENT	≤40mA
6	* SOUND OUTPUT AT 10cm	≥98dB
7	HOUSING MATERIAL	LCP

*Applying rated voltage (Resonant frequency, 1/2 duty, Square wave)


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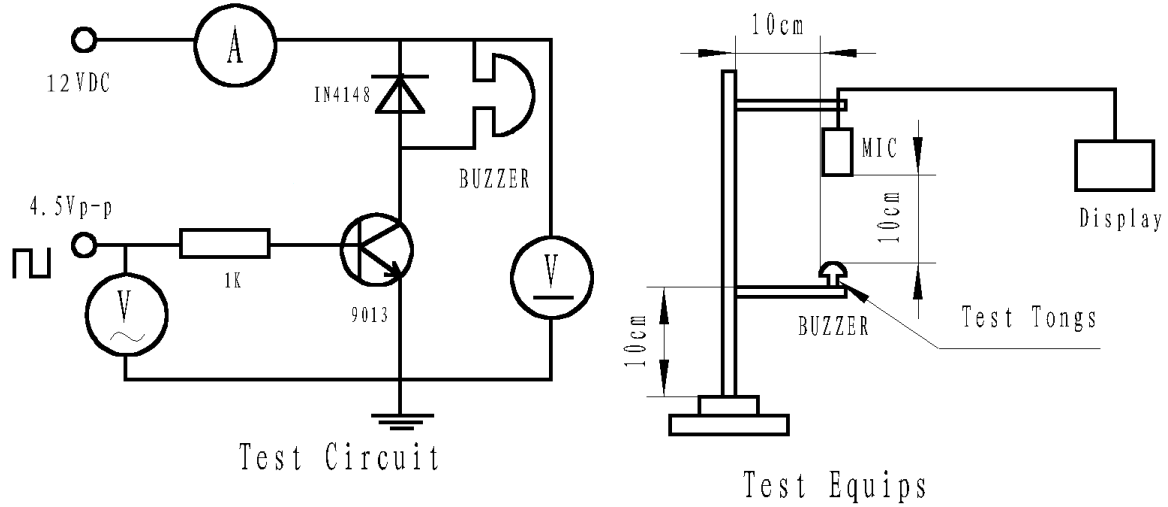
5. RELIABILITY TEST

- After Test All specifications must be satisfied after the test.				
5.1 High temperature Test Temperature: +120±2°C Duration: 120HRS				
5.2 Low temperature Test Temperature: -40±2°C Duration: 120HRS				
5.3 Humidity Test Temperature: +40±2°C Humidity: 90~95%RH Duration: 120HRS				
5.4 Temperature cycling Test Temperature: -40±2°C room temp. +120±2°C room temp. Duration: 30min 15min 30min 15min Cycle: 5 cycles				
5.5 Vibration Test Input power: 10Hz(a period is 1 minute) Amplitude: 1.52mm(9.3g) Duration: 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.				
5.6 Shock Test Sounder shall be measured after being applied shock (980m/s ²) for each three mutually perpendicular directions to each of 3 times by half sine wave.				
5.7 Drop Test Dropped naturally from 700mm height onto the surface of 10mm thick wooden board. 2 directions-upper and side of the part are to be applied.				
5.8 Lead pull The part shall be pulled with a force of 9.8N for 10±1 seconds behind the part.				
				
After the test part shall meet specifications without any degradation in appearance and performance.				
Warranty: For a period of one year from date of manufacture under normal operations.				

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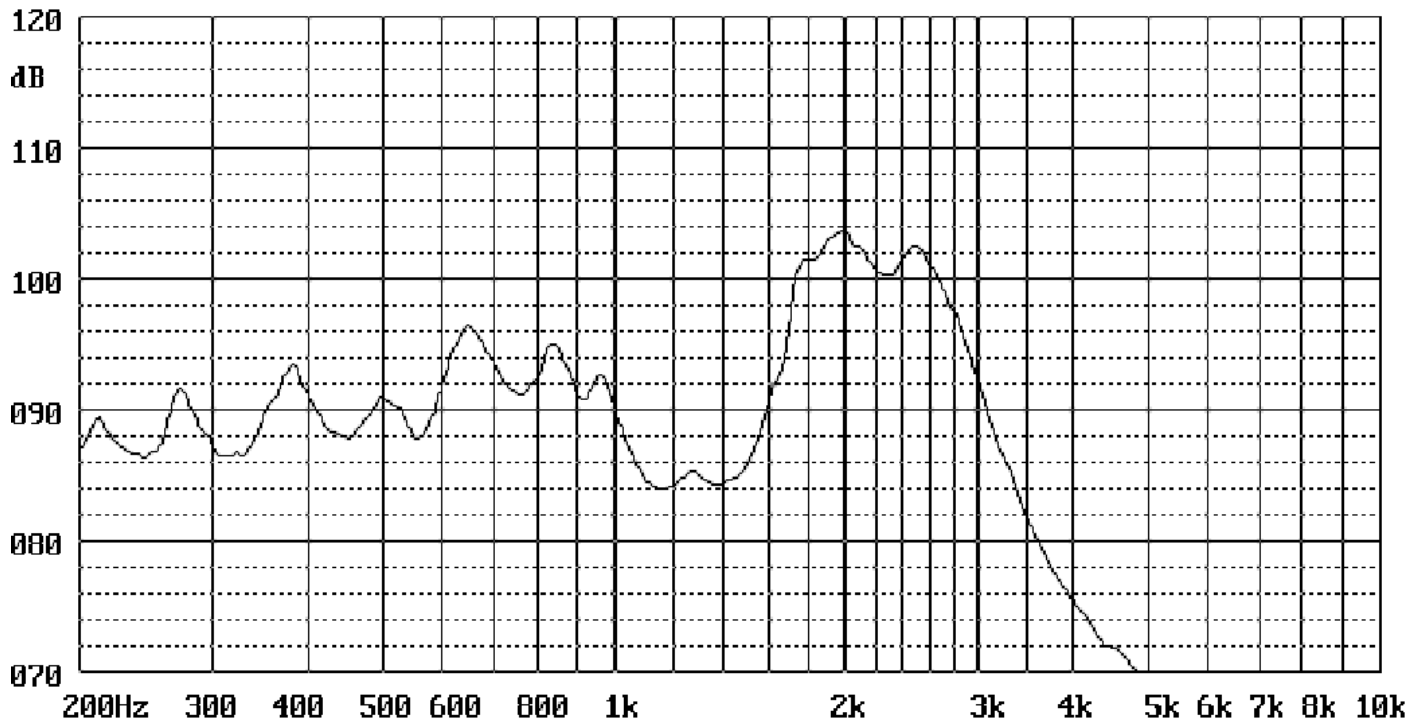
6. TEST METHOD (Figure 1)



7. FREQUENCY RESPONSE (Figure 2)

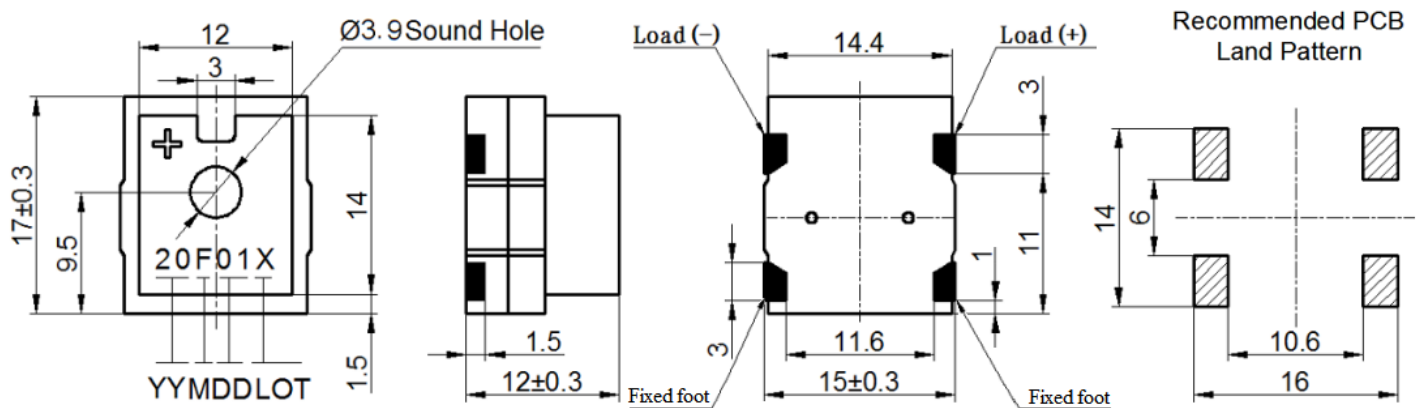
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8. DIMENSIONS (Figure 3)

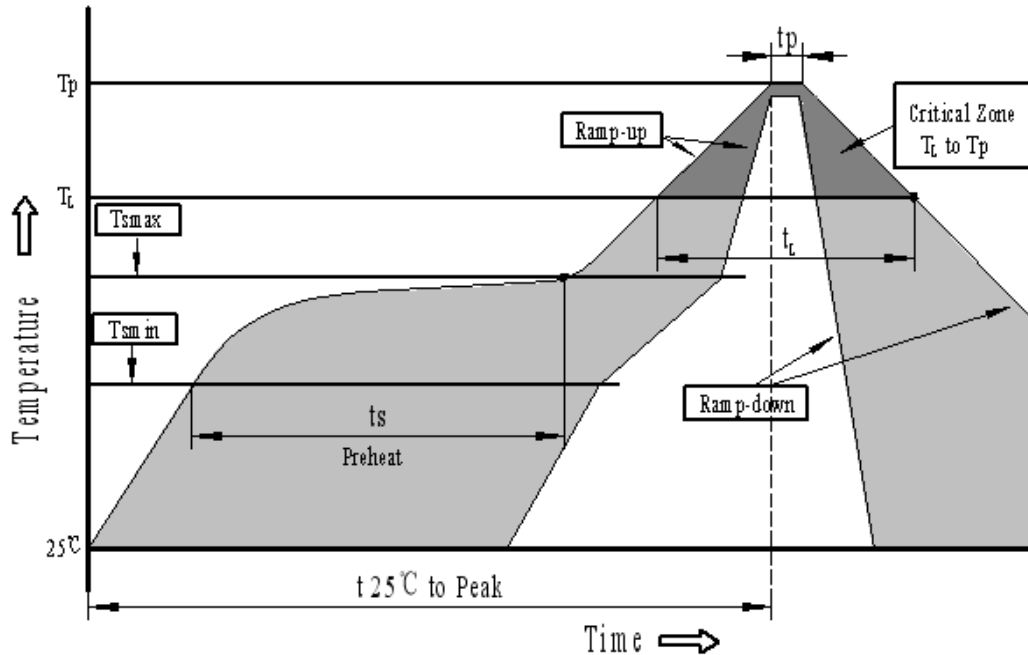
Unit: mm Tolerance: ± 0.5 mm Except Specified



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9. Recommended Temp. Profile for Reflow Oven (Figure 4)

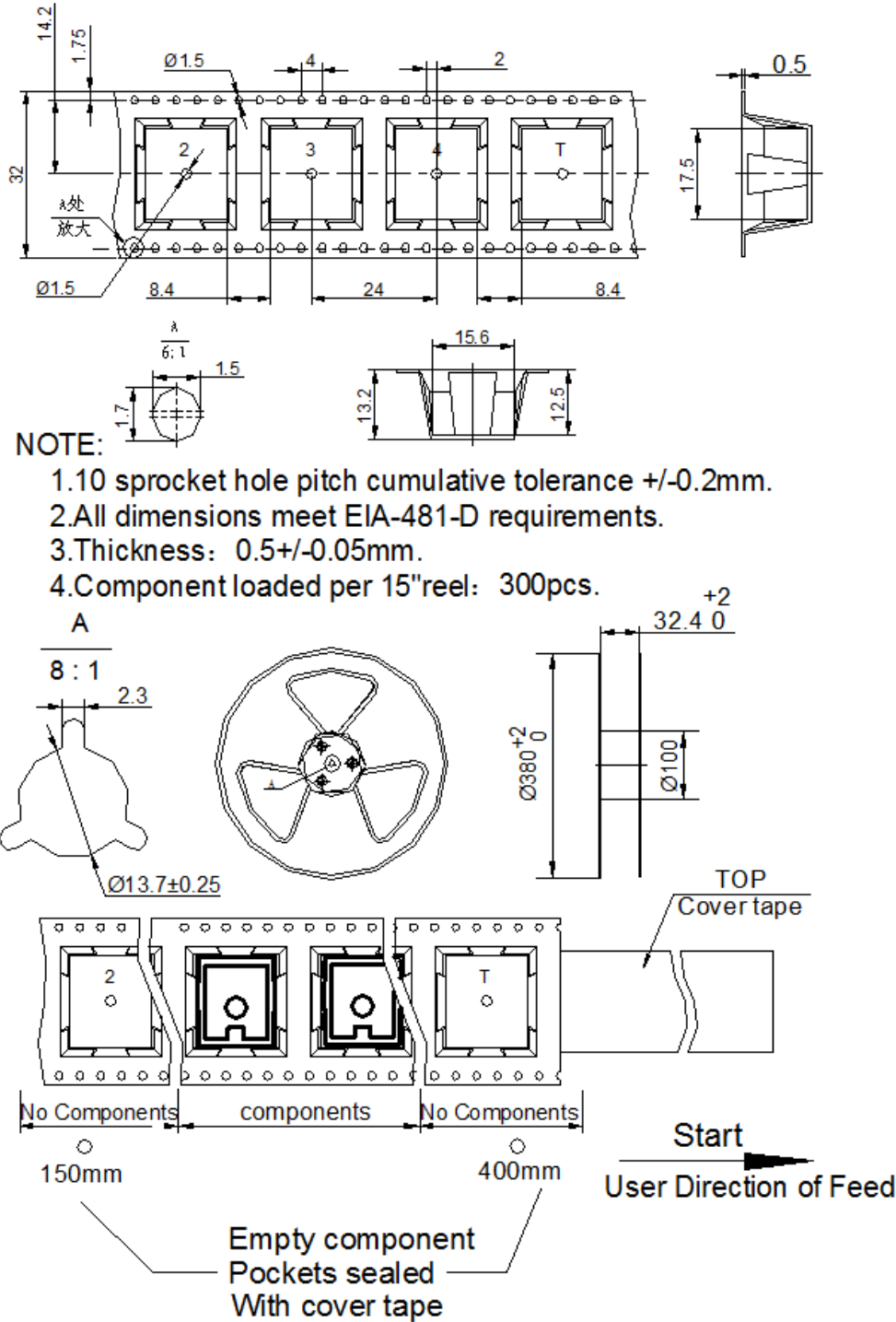


Profile Feature	Pb-Free Assembly
Average ramp-up rate(T_L to T_p)	3°C/second max.
Preheat	
-Temperature Min.(T_{smin})	150°C
-Temperature Min.(T_{smax})	200°C
-Temperature Min.(t_s)	60~180 seconds
T_{smax} to T_L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
- Temperature(T_L)	217°C
-Time(T_L)	60~150 seconds
Peak temperature(T_p)	245°C+0/-5°C
Time within 5°C of actual Peak temperature (t_p)	6 seconds max.
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

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10. PACKAGE INFORMATION (Figure 5)



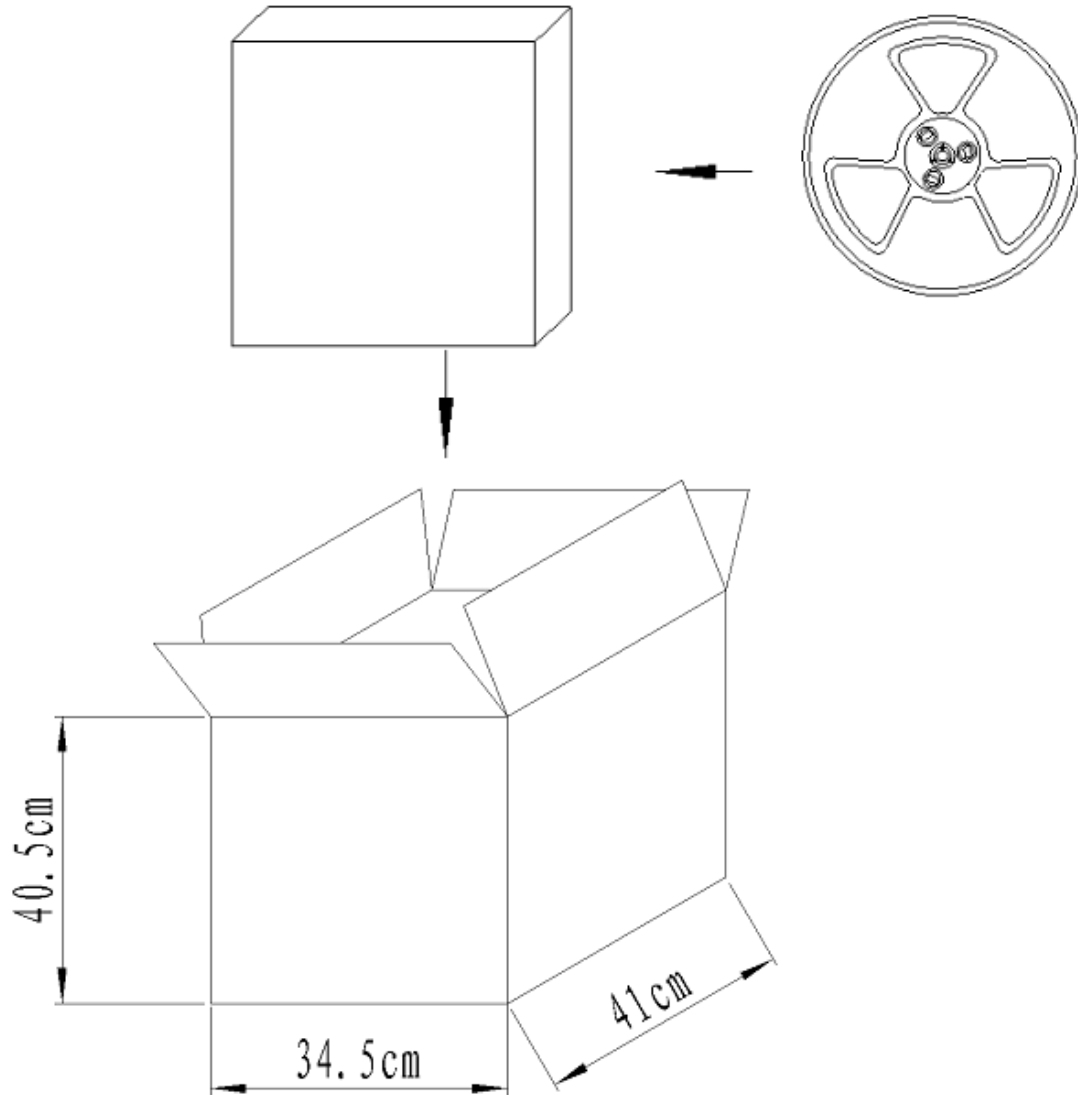
NOTE:

1. 1.10 sprocket hole pitch cumulative tolerance $\pm 0.2\text{mm}$.
2. All dimensions meet EIA-481-D requirements.
3. Thickness: $0.5 \pm 0.05\text{mm}$.
4. Component loaded per 15" reel: 300 pcs.

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PACKAGE INFORMATION (Figure 6)



NOTES:

- 1.300 PCS per box
- 2.Total 7 boxes per carton
- 3.Total 2100 PCS carton

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