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## SPECIFICATION FOR APPROVAL

### SMD Electro-Magnet Transducer

Model Number	OWMB-858530S-27-25
Noted	RoHS Compliant

		DRAWN	CHECKED	APPROVED
CUSTOMER	SIGN			
OLE WOLFF	SIGN			

#### REVISION NOTES:

Date	Rev. No.	Description of Revision
2021-08-24	01	1. The width of carrier tape is changed from 16mm to 24mm 2. The inner and outer boxes are changed accordingly

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## 1. SCOPE

THIS SPECIFICATION IS APPLIED TO OLE WOLFF SMD ELECTRO-MAGNET TRANSDUCER UNIT OF MODEL: OWMB-858530S-27-25

## 2. GENERAL REQUIREMENTS

OPERATING TEMPERATURE RANGE: -20°C L  
+70°C STORAGE TEMPERATUR RANGE: -30°C L  
+80°C

## 3. MECHANICAL LAYOUT & DIMENSIONS

DIMENSIONS: SHOWN IN FIGURE 3. WEIGHT:  
0.5g

## 4. ELECTRICAL CHARACTERISTICS

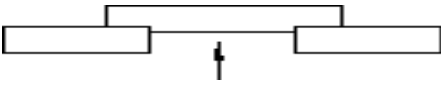
NO.	ITEM	SPECIFICATION
1	MODEL NO.	OWMB-858530S-27-25
2	RATED VOLTAGE	3V
3	OPERATING VOLTAGE	2~4V
4	RESONANT FREQUENCY	2700Hz
5	COIL RESISTANCE	16±3Ω
6	*SOUND PRESSURE LEVEL (at10cm)	Min. 85dB at Rated Voltage
7	*CURRENT CONSUMPTION	Max. 80mA at Rated Voltage
8	Case material and colour	LCP / Black

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

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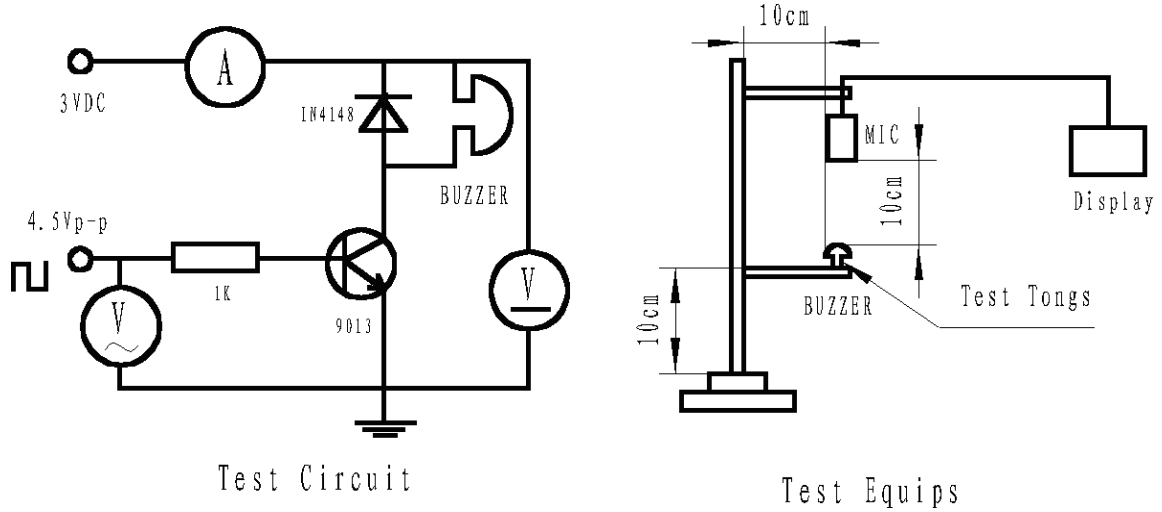
## 5. RELIABILITY TEST

-	<b>AFTER TEST</b> After the test the part shall meet specifications without any degradation in appearance and performance except SPL shall be initial value $\pm 10$ dB or more.
<b>5.1 HIGH TEMPERATURE STORAGE LIFE TEST</b>	High temperature : +80°C Duration : 120 Hours
<b>5.2 LOW TEMPERATURE STORAGE LIFE TEST</b>	Low temperature : -30°C Duration : 120 Hours
<b>5.3 TEMPERATURE CYCLE TEST</b>	Temperature : -30 $\pm 2$ °C → 20 $\pm 5$ °C → +80 $\pm 2$ °C → 20 $\pm 5$ °C Duration : 30 min 15 min 30 min 15 min Cycle : 5 cycles
<b>5.4 HUMIDITY TEST</b>	Temperature : 30 $\pm 2$ °C Relative Humidity : 90~95% RH, Duration : 120 hours
<b>5.5 Drop Test</b>	Height : 700mm Drop Surface : 10mm thick wooden board Direction : 2 directions-upper and side of the part are to be applied
<b>5.6 VIBRATION TEST</b>	Power : 10Hz (1 minute) Amplitude : 1.52mm (9.3g) Total time : 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours
<b>5.7 SHOCK TEST</b>	Shock : 980m/s <sup>2</sup> for each three mutually perpendicular directions to each of 3 times by half sine wave. Sounder shall be measured after this test.
<b>5.8 LEAD PULL</b>	Push Force : 9.8N Duration : 10 $\pm 1$ seconds behind the part  After the test part shall meet specifications without any degradation in appearance and performance.
<b>5.9 RECOMMENDED TEMP. PROFILE FOR REFLOW OVEN</b>	Shown in Fig.4
<b>Warranty:</b> For a period of one year from date of manufacture under normal operations.	

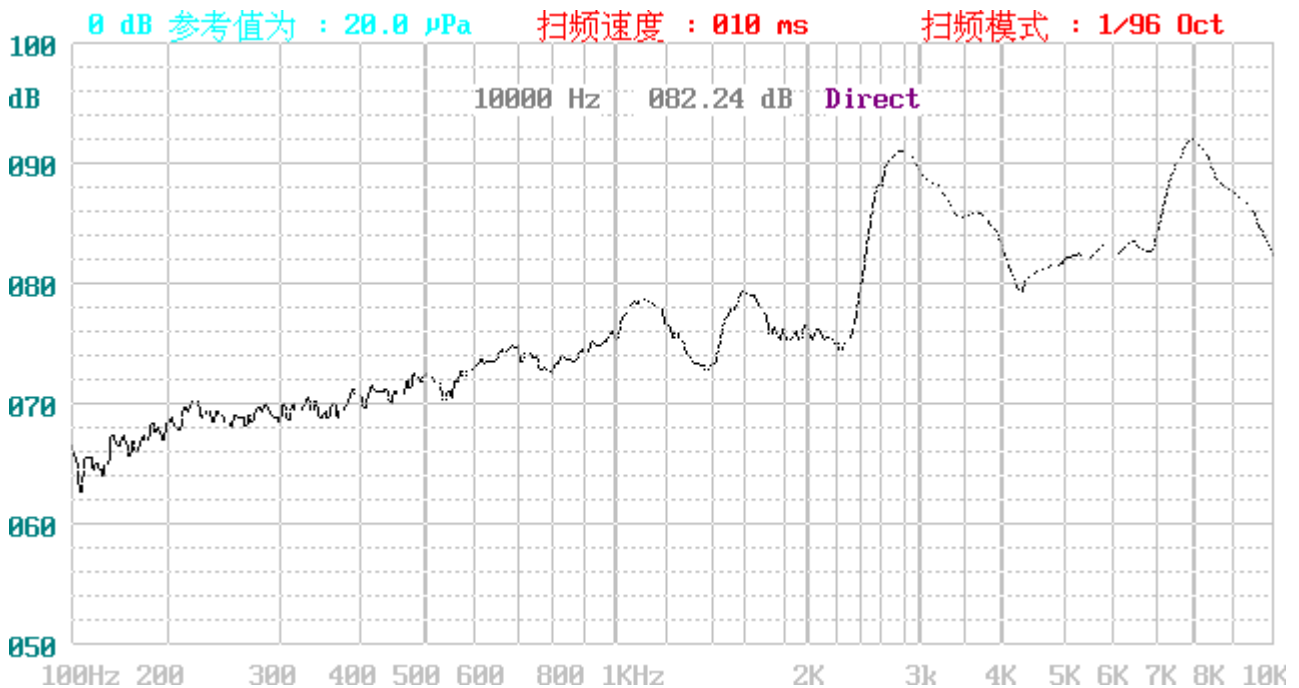
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**6. TEST METHOD (Figure 1)**



**7. FREQUENCY RESPONSE (Figure 2)**



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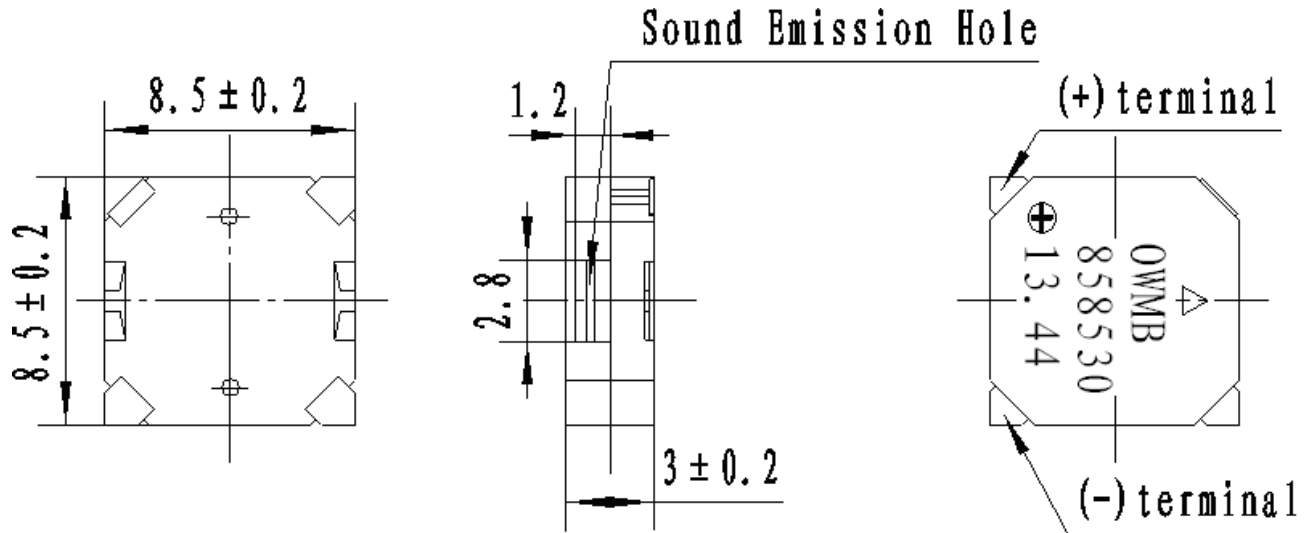
### 8. DIMENSIONS (Figure 3)

Tolerance:  $\pm 0.5\text{mm}$  Except Specified      Unit: mm

Marking Description

13.44 - Year. Calendar Week

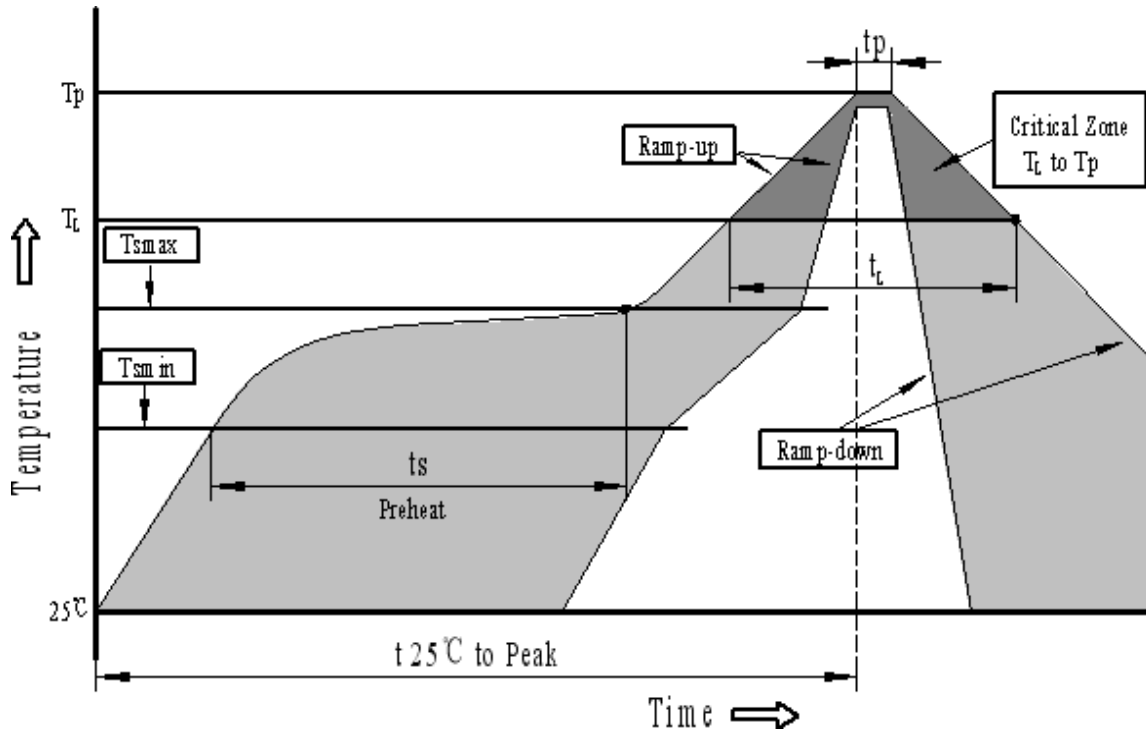
I.e. 13.44 - 2013, CW44



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**9. RECOMMENDED TEMP. PROFILE FOR REFLOW OVEN (Figure 4)**

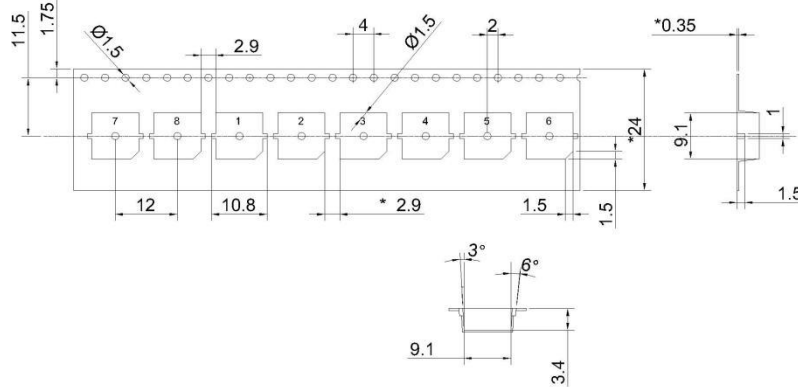


Profile Feature	Pb-Free Assembly
Average ramp-up rate( $T_L$ to $T_p$ )	3°C/second max.
Preheat	
-Temperature Min.( $T_{smin}$ )	150°C
-Temperature Min.( $T_{smax}$ )	200°C
-Temperature Min.(ts)	60 ~ 180 seconds
$T_{smax}$ to $T_L$	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
- Temperature( $T_L$ )	217°C
-Time( $T_L$ )	60 ~ 150 seconds
Peak temperature( $T_p$ )	250°C+0/-5°C
Time within 5°C of actual Peak temperature (tp)	6 seconds max.
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

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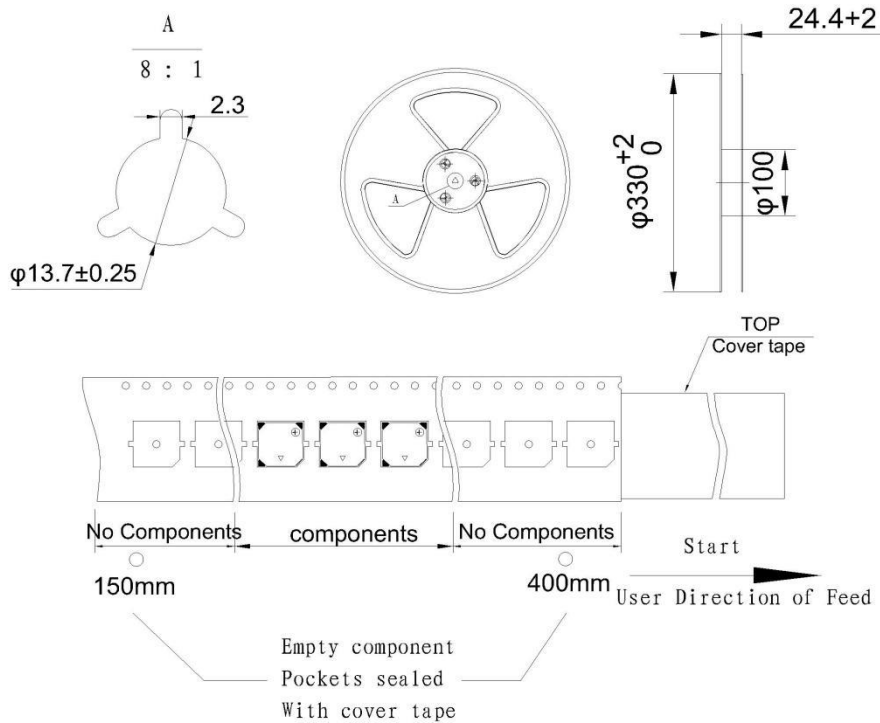
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## 10. PACKING (Figure 5)



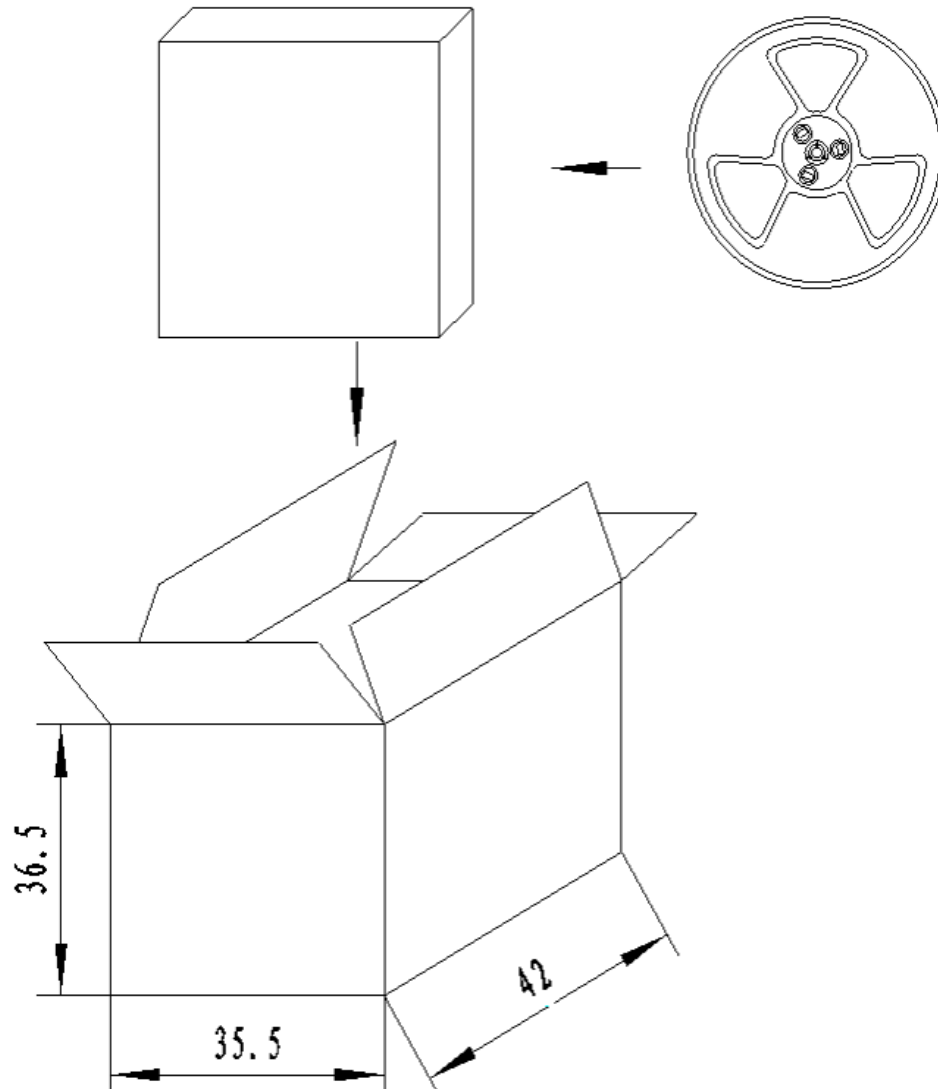
### NOTE:

- 1.10 sprocket hole pitch cumulative tolerance +/-0.20mm.
- 2.All dimensions meet EIA-481-D requirements.
- 3.Thickness: 0.35+/-0.05mm.
- 4.Component loaded per 13.3"reel: 1000pcs.



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**NOTES:**

- 1.1000 PCS per box
- 2.Total 10 boxes per carton
- 3.Total 10000 PCS carton

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