

Data Sheet SMS-1804MS-HT

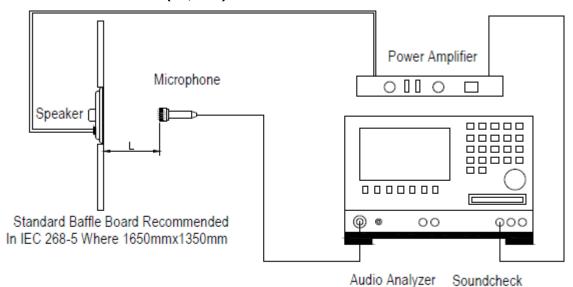
Features:

- Slim 5.9mm height for a low-profile package
- -40°C to 105°C operating temperature range for a wide range of applications

Specifications

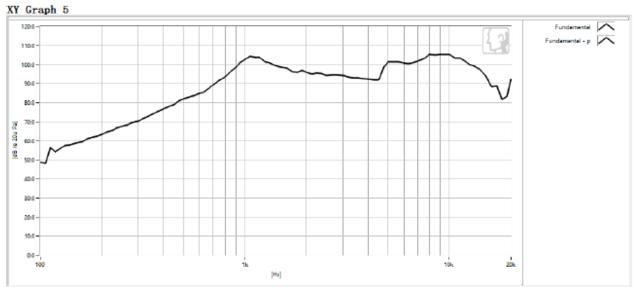
Parameters	Values	Units	
Rated Input Power	1.5	Watts	
Max Input Power	2.0	Watts	
Impedance	4 ± 15%	Ohms	
Output SPL (AVG at 1.0k, 1.6k, 2.0k, 3.2kHz in 1.0W/0.1M average)	96 ± 3	dB	
Resonant Frequency	1100 ± 20%	Hz	
Frequency Range	1100 ~ 20,000	Hz	
THD @ 2kHz, 1.0W	<10%		
Frame Material	LCP	-	
Magnet Material	SMCO	-	
Diaphragm Material	PI	-	
Weight	5.6	Grams	
Ingress Protection Rating	IP67	<u>-</u>	
Acceptable Soldering Methods	Hand Solder, Reflow Solder	See page 3 for soldering information	
Buzz, Rattle, etc.	must be normal at sine wave between 950 ~ 5K Hz	-	
Environmental Compliances	rohs/reach	-	
Polarity	cone will move forward with positive dc current to"+" terminal	<u> </u>	
Storage Temperature	-40 ~ 105	°C	
Operating Temperature	-40 ~ 105	°C	

Measurement Method (1W/0.1M)



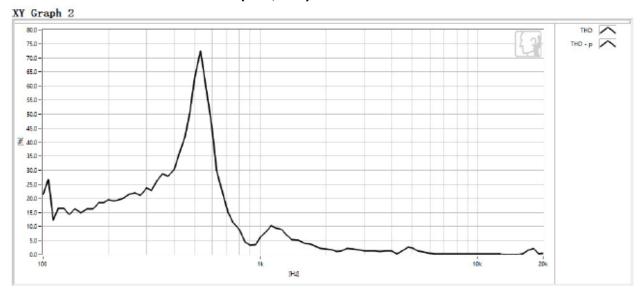
L=10cm

Typical Frequency Response (1.5W/0.1M)



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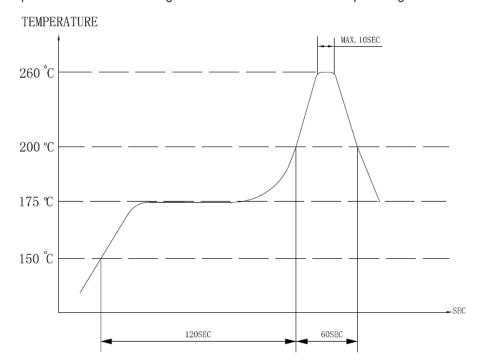
Total Harmonic Distorition (1.5W/0.1M)



Recommended Soldering Procedure

(1) Recommended reflow soldering condition is as follows (Reflow soldering is twice)

Note: It is requested that reflow soldering should be executed after heat of product goes down to normal.



Heat resistant line (Used when heat resistant reliability test is performed)

(2) Manual soldering

Manual soldering temperature 350°C within 5 seconds.

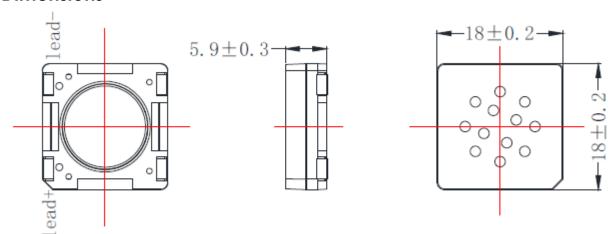
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Reliability Testing

Type of Test	Test Specifications		
High Temperature Test	96 hours at 105°C		
Low Temperature Test	96 hours at -40°C		
Humidity Test	48 hours at 40°C with relative humidity at 90%		
Temperature Cycle Testing	Run for 4 cycles with each cycle consisiting of: +105°C -40°C 2hrs hr 1hr hr 2hrs 6hrs		
Vibration Test	Frequency 30 ± 15 Hz, Amplitude 1.5 mm for 3 Hours		
Drop Test	75 CM free falling on Concrete floor, 10 times		
Load Test	Must perform normal with program White-Noise source at Rated Power for 96 Hours		

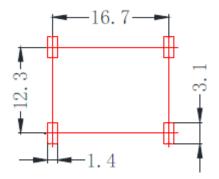
After any following test, parts should conform to original performance within ±3 dB tested with Rated Power, after 6 hours of recovery period.

Dimensions



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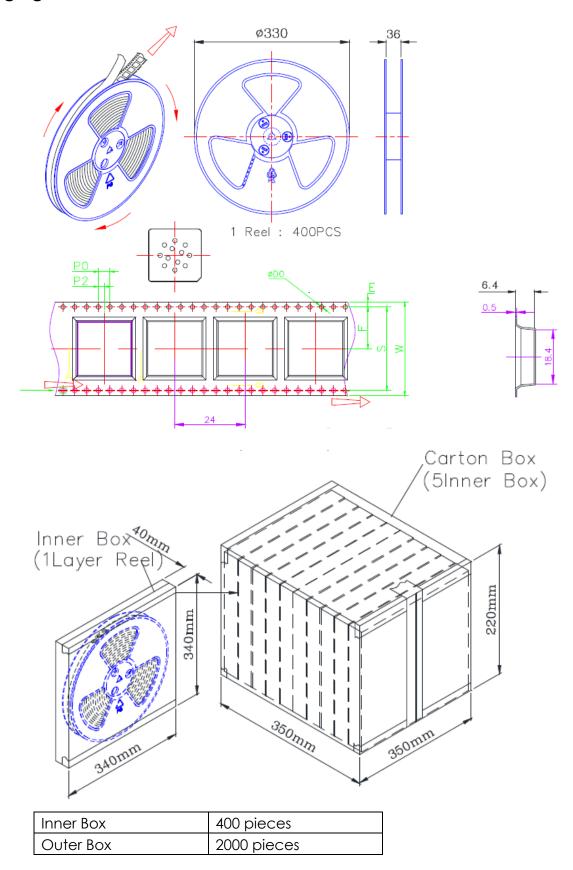
Suggested Land Pattern*



*This land pattern is advisory only and its use or adaptation is entirely voluntary.

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Packaging



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Specifications Revisions

Revision	Description	Date	Approved
Α	Released from Engineering	10/19/2023	-
В	Revised Rated Input Power, Max Input Power, Resonant Frequency, Frequency		
	Response Graph, Total Harmonic Distortion Graph	05/31/2024	JD

Note:

- 1. Unless otherwise specified:
 - A. All dimensions are in millimeters.
 - B. Default tolerances are ± 0.5 mm and angles are $\pm 3^{\circ}$.
- 2. Specifications subject to change or withdrawal without notice.