

## AST-03032MR-R 30mm Speaker

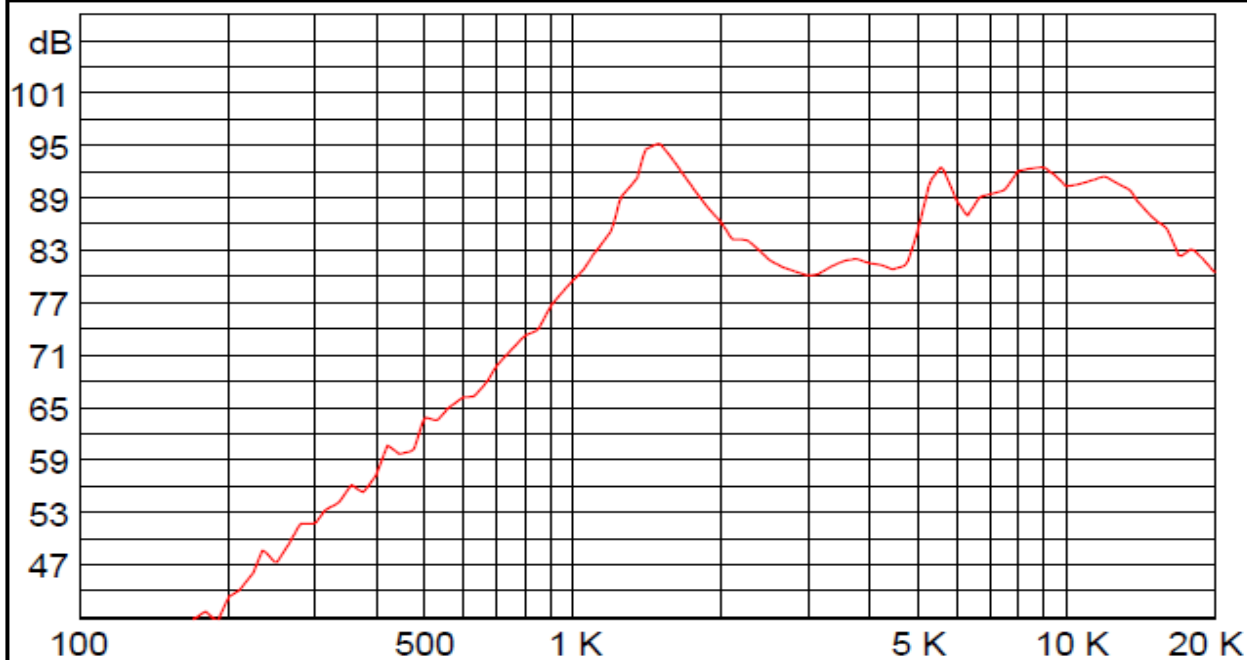


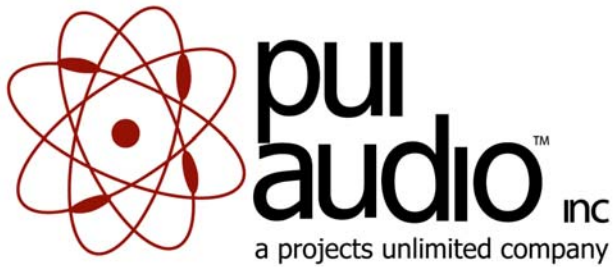
3541 Stop Eight Road • Dayton, Ohio 45414

### Product Overview

- 30mm diameter speaker with Neodymium magnet for 81 dB sensitivity
- 0.1W continuous, 0.2W maximum power handling and 32Ω impedance
- Mylar cone for wide frequency response
- Thru hole design and wave solderable for PCB mount

Frequency Response (0.1W @ 0.1 meter)





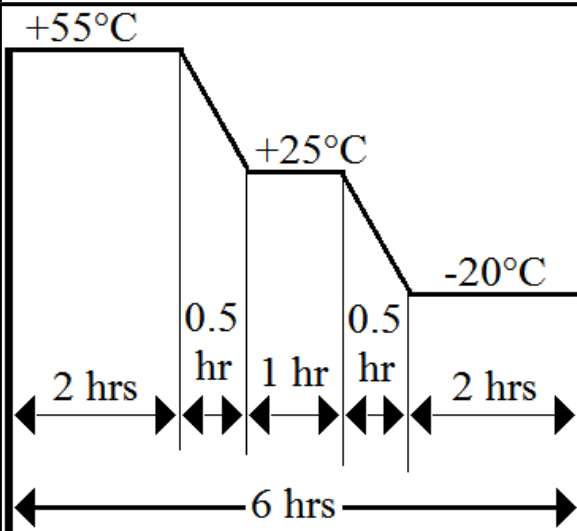
# AST-03032MR-R 30mm Speaker

## Mechanical and Environment Testing

Test Description	Test Condition
High Temperature	55°C with random humidity for 96 hours
Low Temperature	-20°C with random humidity for 96 hours
Humidity	40°C with 90% to 95% relative humidity for 96 hours
Vibration	1.5 mm movement modulated at 10 to 55 Hz for 2 hours
Drop Test	75 cm free fall onto 40 mm thick board, 10 cycles
Temperature Cycle Test	-20°C to 55°C, 5 cycles (refer to Temperature Cycle Test Graph)

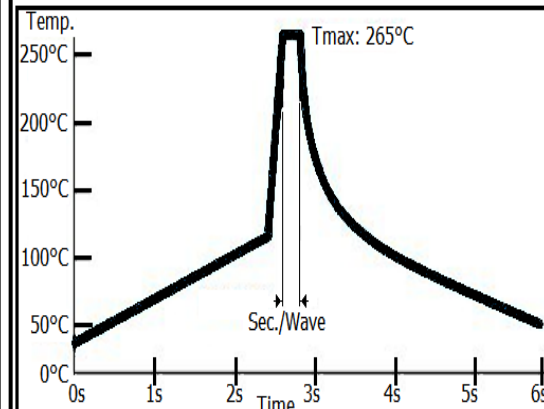
After tests, speaker shall rest for 1 hours. SPL shall not deviate  $\pm 3$  dB from pre-test measurement.

## Temperature Cycle Test Graph

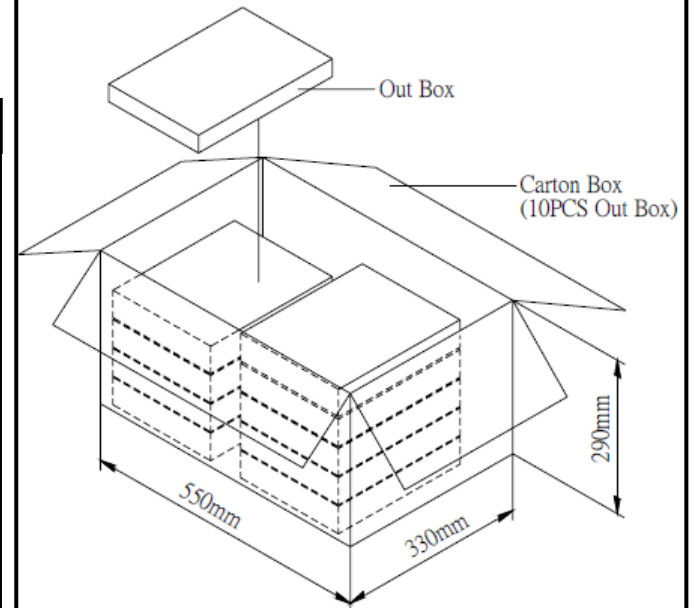
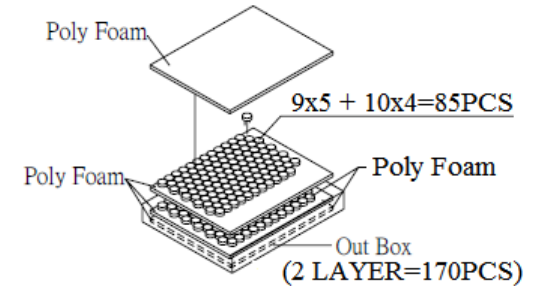


## Wave Solder Profile

- Preheat temperature: Max 100° less than 80 seconds
- Soldering bath temperature 250°C (lead)/265°C (lead-free alloy)
- Wave soldering cycle time: 4 sec. (single wave), 6 sec. (dual wave)



## Packaging Information



Outer Box	310mmx248mmx49mm	1x170PCS=170PCS
Carton	550mmx330mmx290mm	170PCSx10=1,700PCS

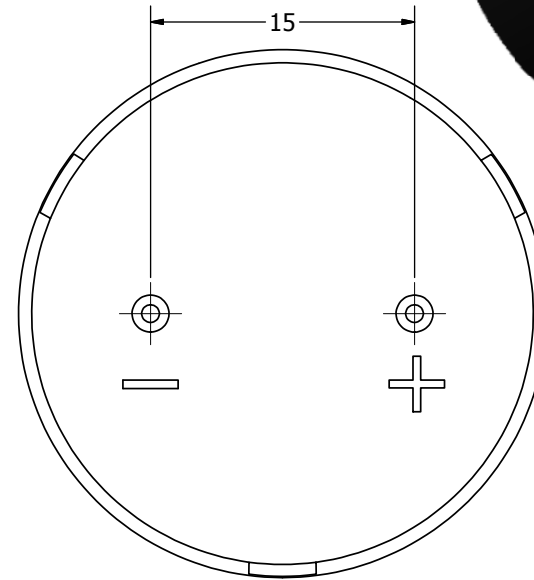
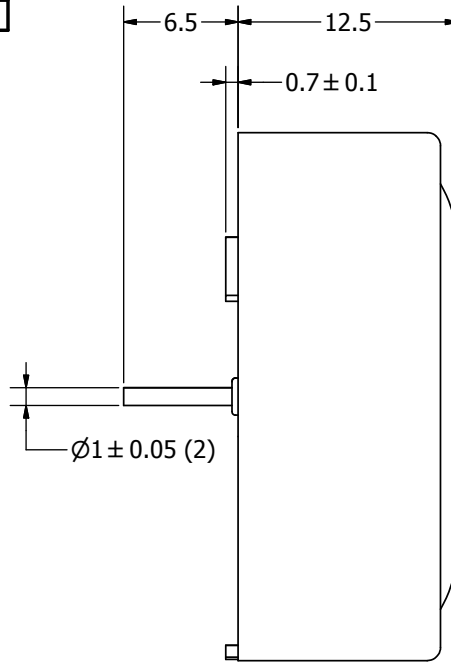
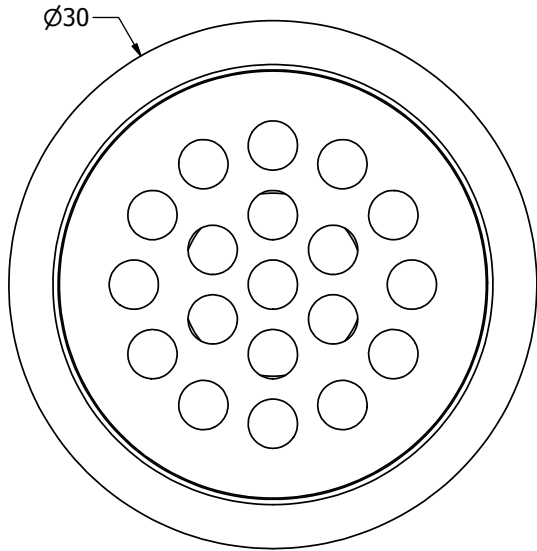
# SPECIFICATIONS

PARAMETERS	VALUES	UNITS
RATED INPUT POWER	0.1	W
MAX INPUT POWER	0.2	W
IMPEDANCE	32 ± 20%	OHM
OUTPUT SPL @ 0.1W/0.1M (AT 2.0, 2.5, 3.0, 4.0 kHz)	81 ± 3	dBA
DISTORTION (MAX.)	5%	-
RESONANT FREQUENCY	1,200 ± 20%	Hz
FREQUENCY RANGE	1200 ~ 20,000	Hz
HOUSING MATERIAL	PBT	-
CONE MATERIAL	MYLAR	-
MAGNET MATERIAL	Nd-Fe-B	-
OPERATING TEMPERATURE	-20 ~ +55	°C
WEIGHT	8.5	grams

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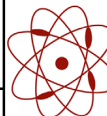
# REVISION HISTORY

LTR	DESCRIPTION	DATE	APPROVED
-	RELEASED FROM ENGINEERING	5/17/2006	
A	REVISED PART DIMENSION	3/19/2007	D.F.
B	REVISED TO INVENTOR 3-D DRAWING TEMPLATE	10/24/2008	B.R.



### NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. SPECIFICATIONS SUBJECT TO CHANGE OR WITHDRAWL WITHOUT NOTICE.
3. THIS PART IS RoHS 2002/95/EC COMPLIANT.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ARE ±0.5 AND ANGLES ARE ±3°.	SIZE	Designed by	Date	Checked by	Date	Approved by	Date	Drawn Date
	A3	J.D.	5/17/2006	E.P.	5/17/2006	B.R.	5/17/2006	10/24/2008
AST-03032MR-R.idw		 <b>pui audio</b> <small>a projects unlimited company</small>				<b>AST-03032MR-R</b> <b>Speaker</b>		
						Edition	Sheet	
						-	1 / 1	

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