

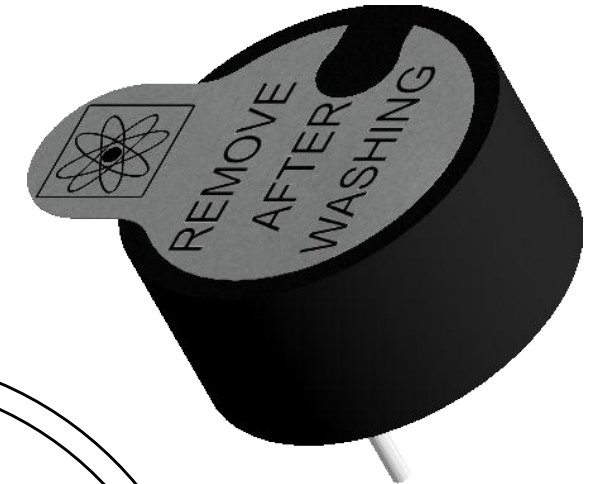
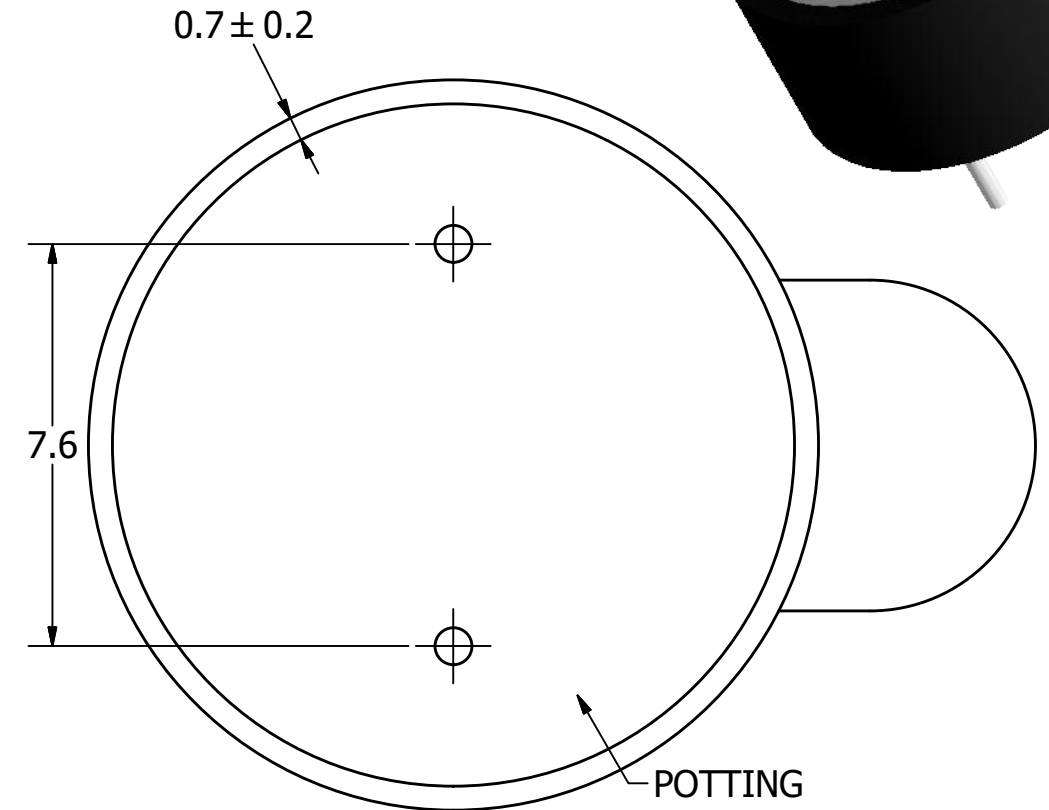
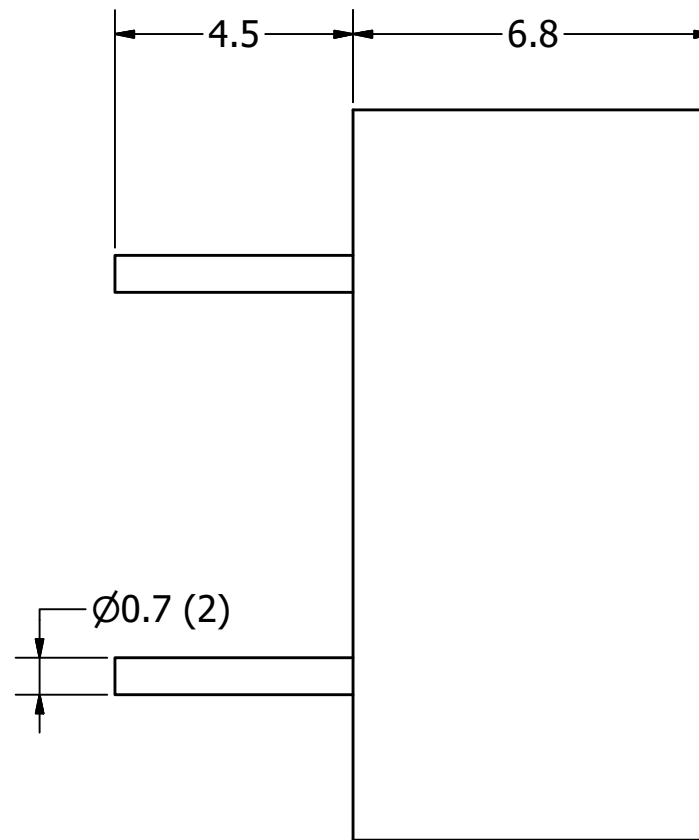
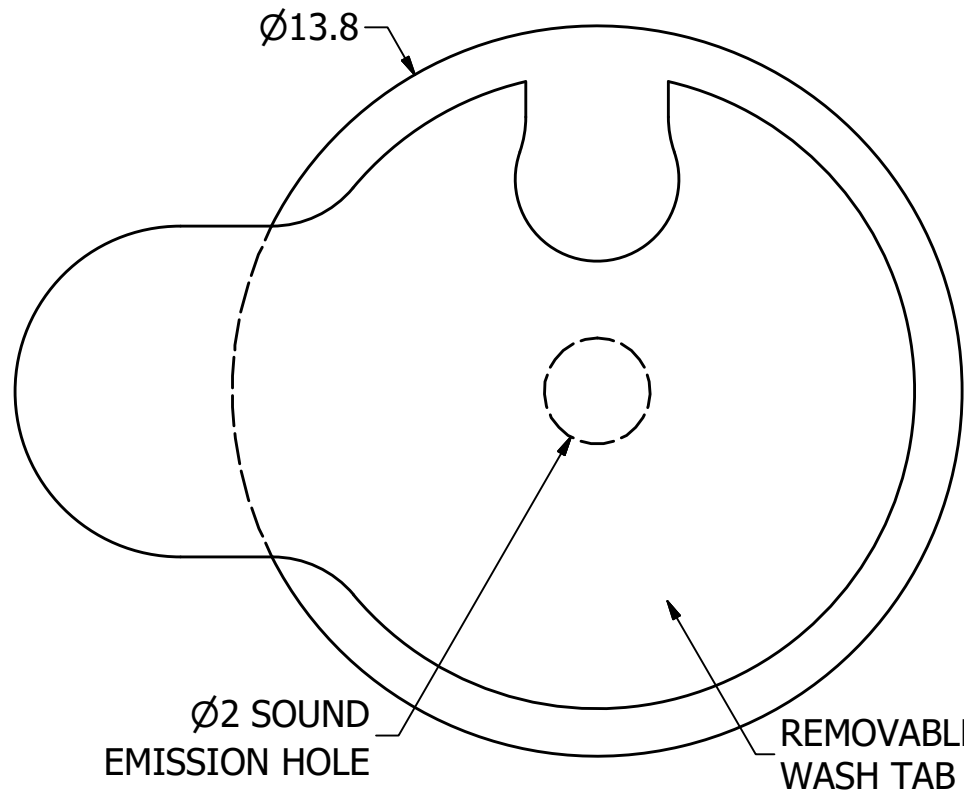
SPECIFICATIONS

PARAMETERS	VALUES	UNITS
RATED VOLTAGE	5	Vp-p
OPERATING VOLTAGE RANGE	1 ~ 20	Vp-p
RATED CURRENT (MAX)	1	mA
CAPACITANCE	13,000 ± 30%	pF
MINIMUM SPL @ 10 CM	80	dB
RESONANT FREQUENCY	3,800 ± 300	Hz
OPERATING TEMPERATURE	-40 ~ +70	°C
STORAGE TEMPERATURE	-40 ~ +85	°C
HOUSING MATERIAL	NORYL	-
TERMINAL MATERIAL	Sn PLATED RED COPPER	-
WEIGHT	1	grams

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REVISION HISTORY

LTR	DESCRIPTION	DATE	APPROVED
-	RELEASED FROM ENGINEERING	8/17/2004	
A	REMOVED LEAD FREE ADDE RoHS NOTE	8/10/2005	
B	REVISED TERMINAL MATERIAL	1/24/2006	B.R.
C	REVISED HOUSING MATERIAL	11/13/2006	B.R.
D	ADDED LABEL & POLARITY MARKING	11/22/2006	B.R.
E	REVISED TO INVENTOR 3-D DRAWING TEMPLATE	4/16/2008	B.R.
F	REVISED TO REMOVE POLARITY & UPDATED ROHS STATEMENT	3/2/2017	M.V.
G	ADDED WAVE SOLDER NOTE	1/25/2019	M.L.
H	REVISED TEMPERATURE SPECIFICATIONS AND FREQUENCY TOLERANCE	2/27/2020	M.V.



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. SPECIFICATIONS SUBJECT TO CHANGE OR WITHDRAWL WITHOUT NOTICE.
3. THIS PART IS RoHS 2011/65/EU COMPLIANT.
4. WAVE SOLDER ACCEPTABLE.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ARE ±0.5 AND ANGLES ARE ±3°.	SIZE A3	Designed by	Date	Checked by	Date	Approved by	Date	Drawn Date
		R.A.C.	8/17/2004			R.W.	8/17/2004	4/16/2008
AT-1438-TWT-R.idw				AT-1438-TWT-R			Transducer (Piezo)	
							Edition	Sheet
							-	1 / 1