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# SPECIFICATION FOR APPROVAL

Product	PIEZO BUZZER (SELF DRIVE)
Part No.	AZ-2331S-W
Customer Approval	

Approved By	Checked By	Made By



**A & B Components**

**<http://www.speaker-tw.com>**

## AZ-2331S-W

Items		Units	Specifications	Conditions
01	Rated Voltage	VDC	12	
02	Operating Voltage	VDC	3~16	
03	Rated Current	mA(Max)	8	At 12VDC
04	Sound Output At 30cm	dBA(Min)	80	At 12VDC
05	Resonant Frequency	Hz	3100 ± 500	
06	Tone Nature	Single		
07	Operating Temp.	°C	-20 ~ +60	
08	Storage Temp.	°C	-30 ~ +70	
09	Weight	g	5	

### Measurement Condition

Test and measurement will be carried out under normal condition of temperature

within 5°C to 35°C ,relative humidity within 45% to 85% and air pressure of 860mbar to 1060mbar.

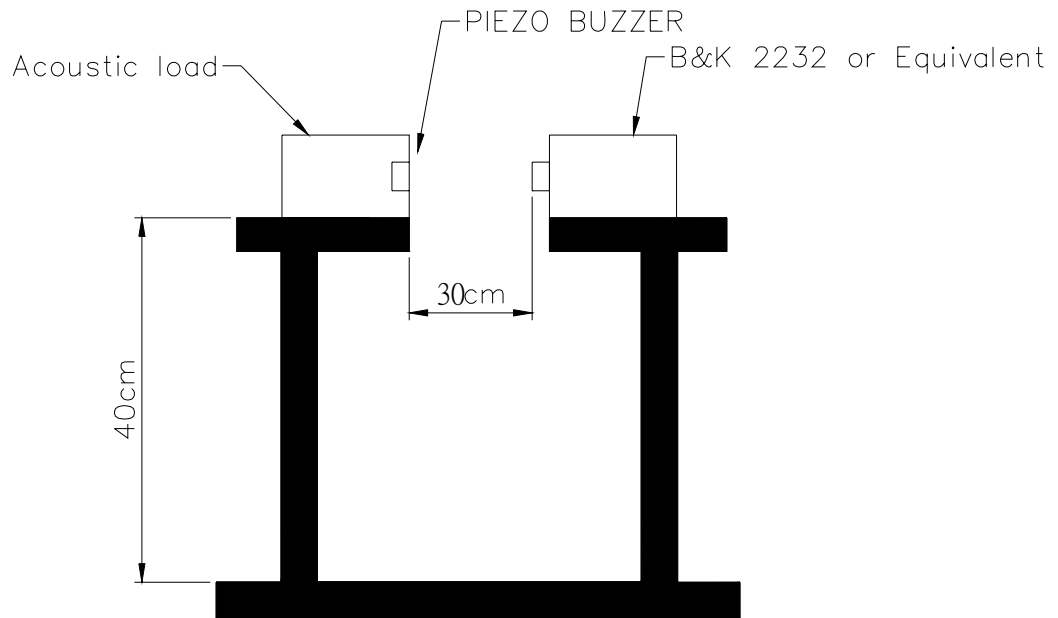
Should uncertainly arise in data obtained from the above atmosphere, control of temperature

At 20°C±2°C and relative humidity within 60% and 70%, with air pressure remaining unchanged,

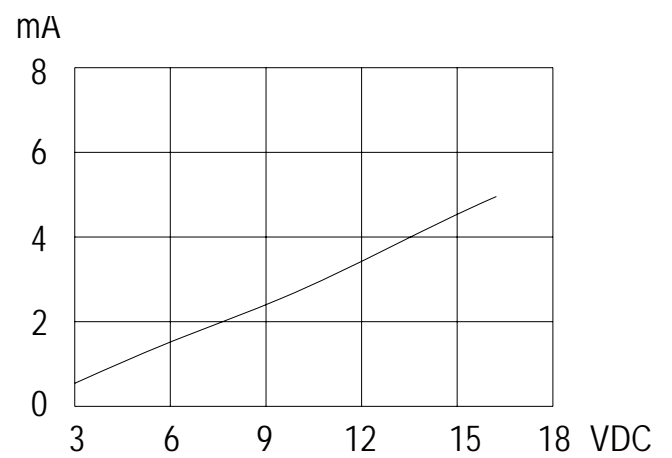
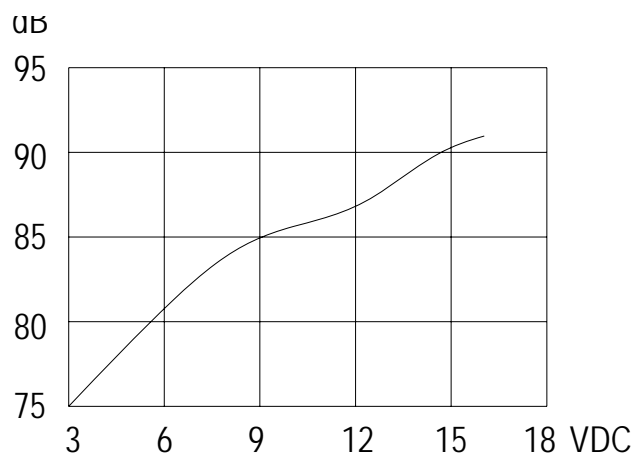
To be enforced.

# Value Applying Rated Voltage

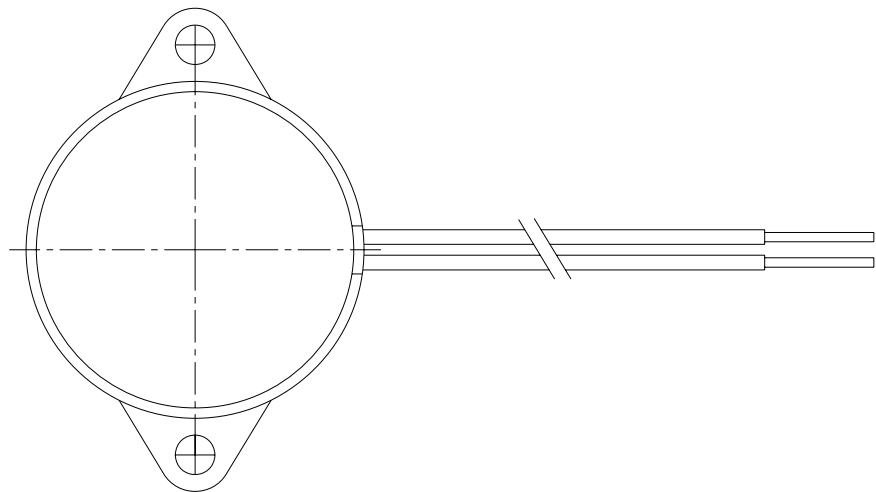
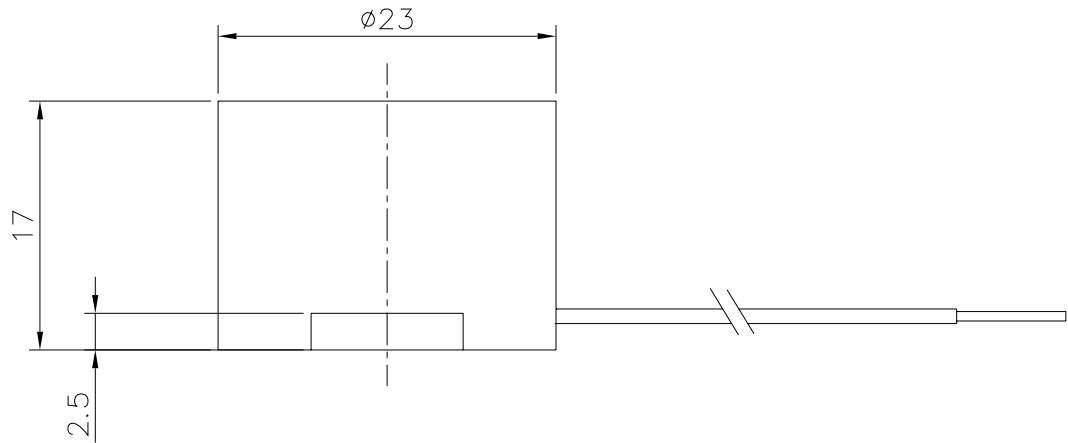
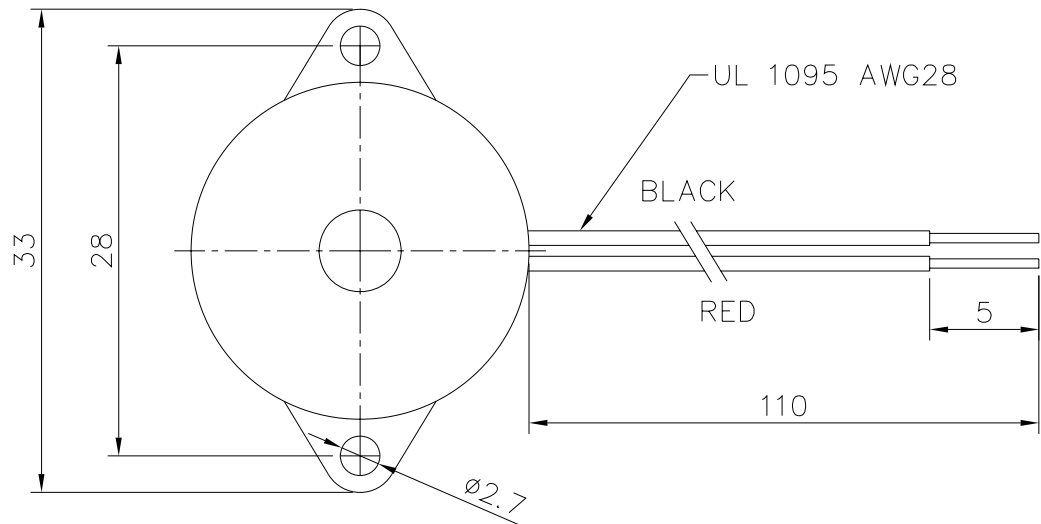
## STANDARD TEST FIXTURE



## Characteristic



REV NO.	REVISION NOTE	APPROVAL	DATE
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TITLE:	PIEZO BUZZER		DRAWN:	<i>Richard</i> 02/22/2002	SCALE:	2:1	SHEET:	1 of 1
PART NO.	AZ-2331S-W		DESIGNED:	R & D DEP.	UNITS:	mm	TOLERANCE $\pm 0.5$	
DWG NO.	DTP-1134	1 REV	CHECKED:		UNLESS OTHERWISE SPECIFIED:			
			APPROVAL:		ONE PLACE DECIMAL $\pm$ ***			
			MATERIAL:	ABS	TWO PLACE DECIMAL $\pm$ ***			
THREE PLACE DECIMAL $\pm$ ***								

A & B Components

# RELIABILITY TEST

## AZ-2331S-W

Item		Conditions	Evaluation standard
01	Low Temp. Storage Test	A°C±2°C ,240Hr	(S.P.L)Test before numerical ±10dB (Frequency)Test before numerical ±10% (Current)Test before numerical ±10% (No crake is allowed on the part surface after Free drop test ) ● After the test ,the part shall meet the specifications without any degradation in appearance and performance
02	High Temp.Storage Test	B°C±2°C RH50% ,240Hr	
03	Temp./Humidity Storage Test	40°C±2°C , RH90-95% 240Hr	
04	Thermal Shock Test	A°C±2°C (1Hr)→ ,20°C±2°C (1Hr) B°C±2°C (1Hr)→ ,20°C±2°C (1Hr)10 cycle	
05	Vibration Test	10-55Hz/1min amplitude1.5mm,X,Y,Z,3 directions	
06	Mechanical Shock Test	+100G,Sine wave, XYZ , 3 impacts per axis	
07	Free Drop Test	The part shall be dropped freely from a height of 75 cm onto concrete 1 time in 2 axes (total 4 times )	
08	Life Burning Test	The part shall be subjected to 1000 hrs in the room temp with rated voltage applied	
09	Lead Wire / Pin Pull Test	The Part checking standard : Following supplier's Spec. Finished-part checking Standard vertical Pull i)100g MIN 0.05mm Thickness of ceramic ii)300g MIN 0.1mm ≤ Thickness of ceramic b: Horizontal Pull i)700g MIN	

Remark : "A" means Storage low temp. "B" means Storage high temp