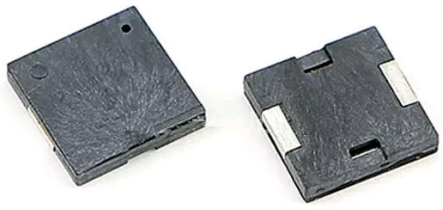
SPECIFICATION FOR APPROVAL
PIEZO BUZZER

Model Name	BUZ-EPT0902S-HL-03-4.0-12-R
Note	RoHS Compliant

Product Photo	
	**DRAWING：**
	CHECKED：
	APPROVED：

	DATE	10-10-16	SPECIFICATION
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	MODEL NUMBER:BUZ-EPT0902S-HL-03-4.0-12-R		

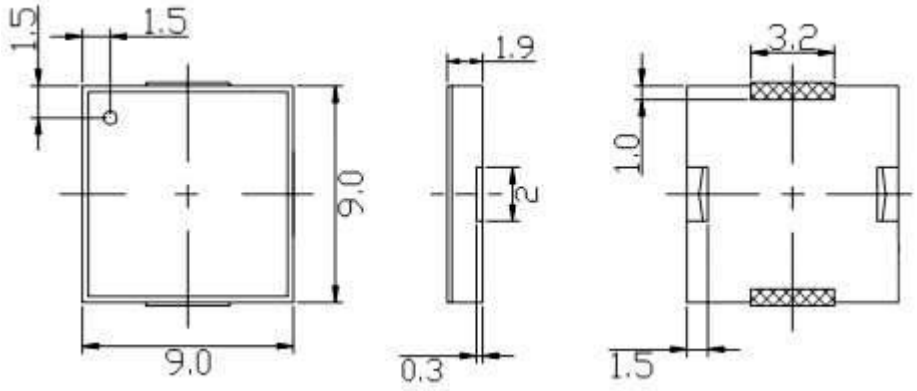
1.BUZ-EPT0902S-HL-3-4.0-12-R PIEZO BUZZER

1	Rated Voltage (Vp-p)	3
2	Operating Voltage (Vp-p)	1-25
3	Resonant Frequency (Hz)	4000
4	*Min Sound Output at 4.0KHz/10cm (dB)	70
5	Capacitance at 100Hz(pF)	12000±30%
6	Operating Temperature (℃)	-30～+70
6	Storage Temperature (℃)	-40～+85
7	Weight (g)	0.2
8	Housing Material	LCP
9	RoHS	Yes

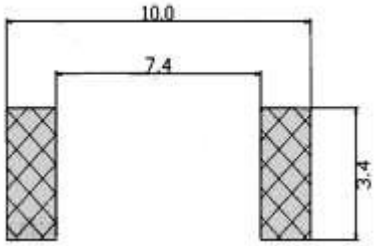
*Applying rated voltage (Resonant frequency, Square wave)

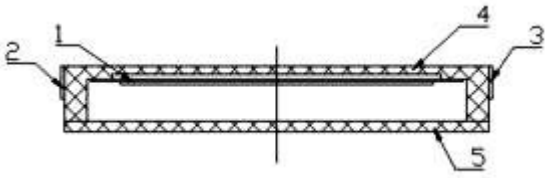
2.DIMENSIONS (UNIT: mm)

Tolerance: ±0.5mm Except Specified



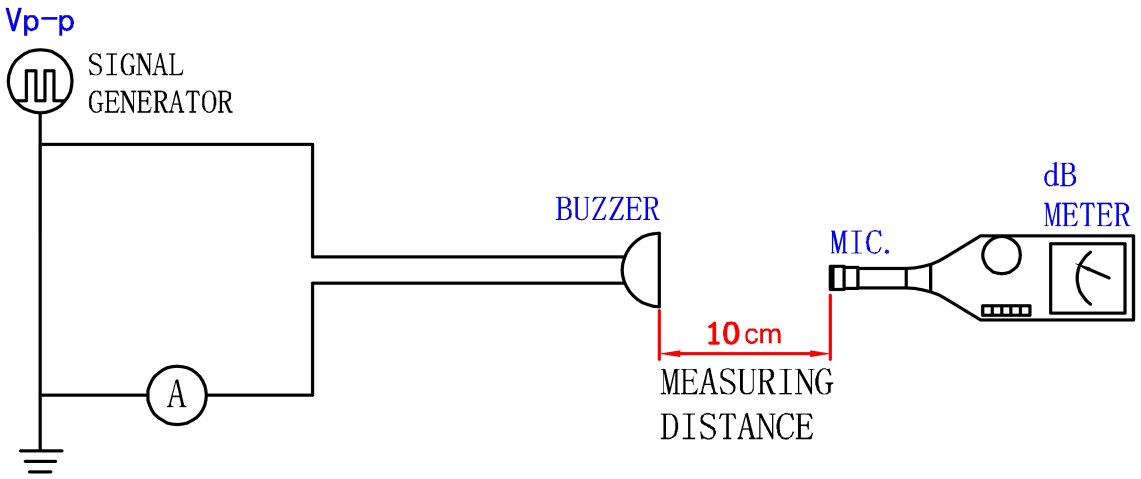
SMD REFLOW PATTERN



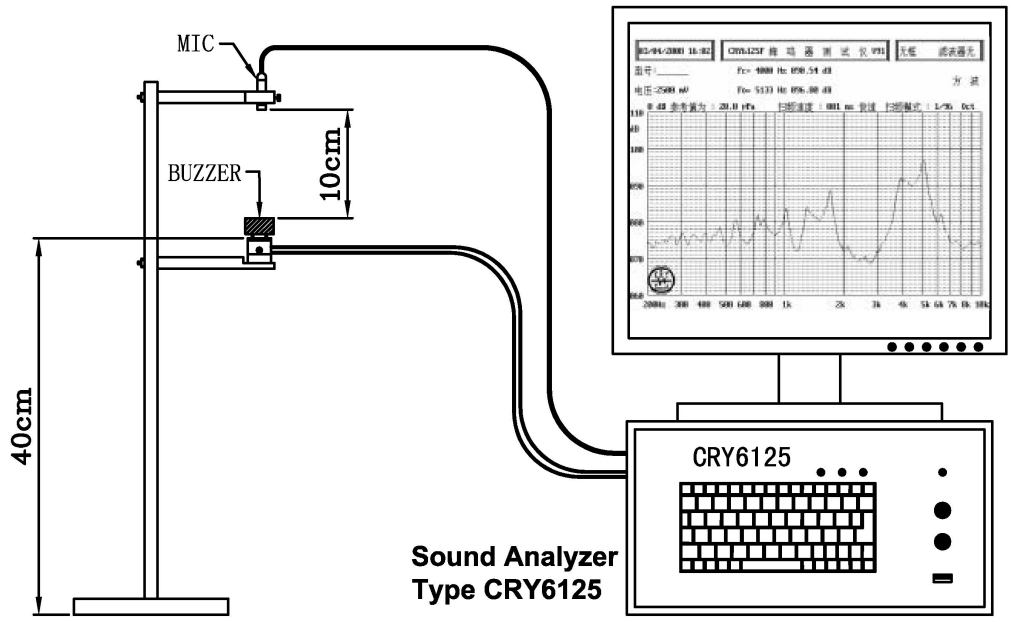


3. Acoustic Characteristics

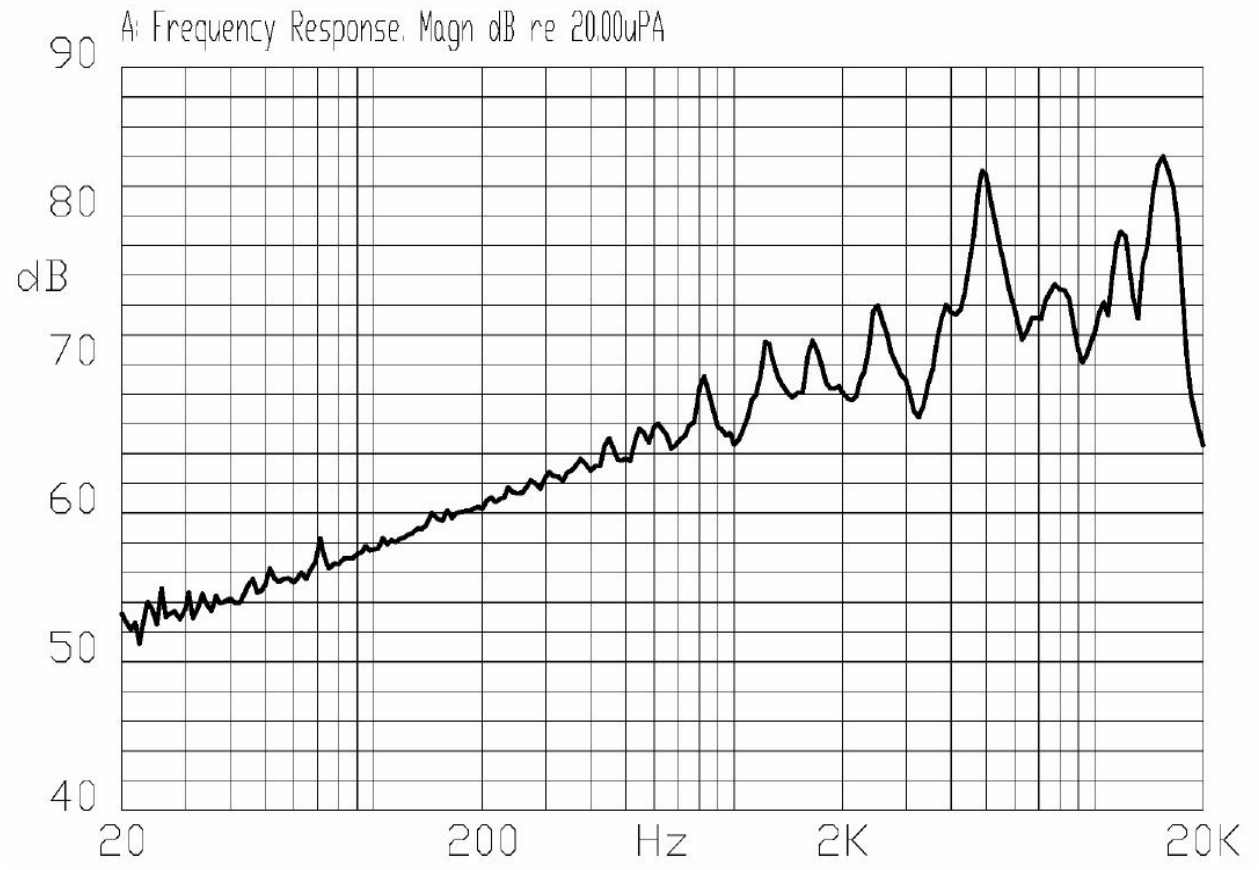
The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below



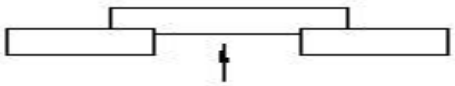
In the measuring test, buzzer is placed as follows:



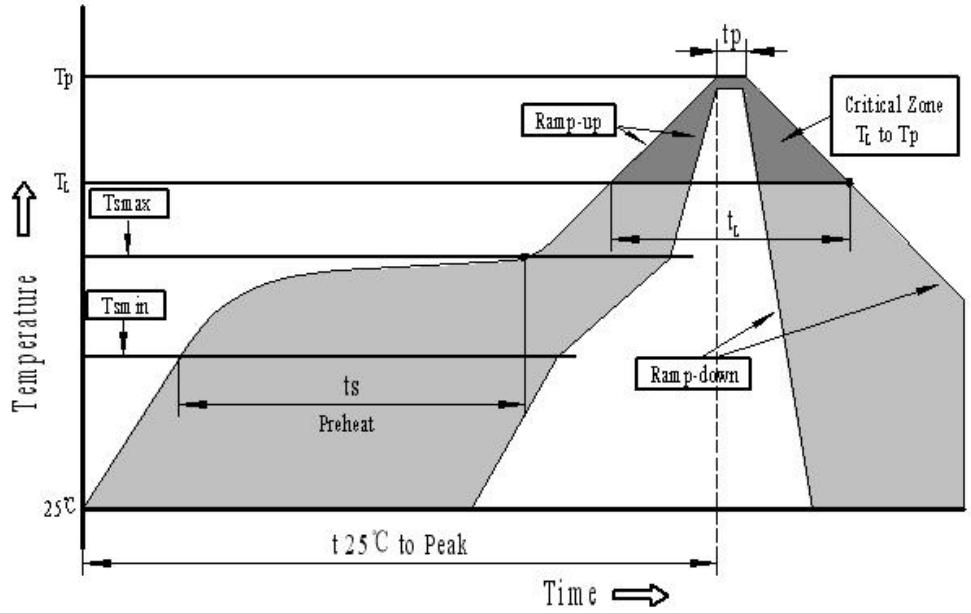
4.Typical Frequency Response Curve



5.RELIABLY TEST:

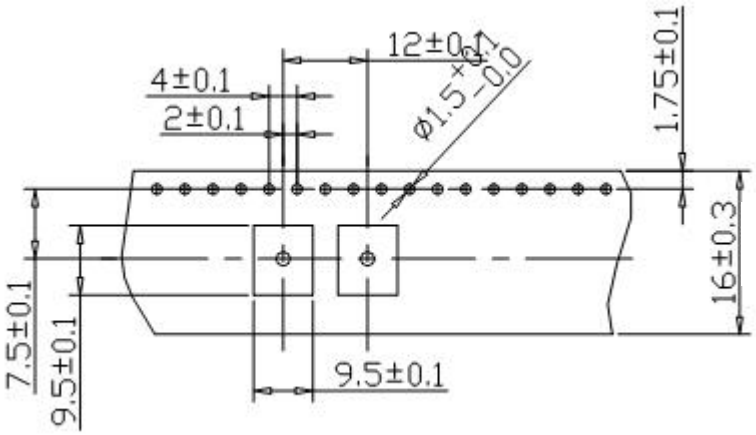
NO.	ITEM	TESTING CONDITION	VARIANCE AFTER TEST
1	High temp. storage life	The part shall be capable of withstanding a storage temperature is +80℃ for 120 hours	All specifications must be satisfied after the test.
2	Low temp. storage life	The part shall be capable of withstanding a storage temperature is -30℃ for 120 hours	
3	Temp. Cycle	Total 5 cycles, 1 cycle consisting of -30±2℃, 30 minutes 20±5℃ 15 minutes 80±2℃, 30 minutes 20±5℃ 15 minutes	
4	Humidity Test	40±2℃, 90～95% RH, 120 hours	
5	Vibration Test	The part shall be subjected to a vibration cycle is 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm(9.3g). The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.	
6	Shock	Sounder shall be measured after being applied shock (980m/s²) for each three mutually perpendicular directions to each of 3 times by half sine wave.	
7	Drop Test	Dropped naturally from 700mm height onto the surface of 10mm thick wooden board. 2 directions-upper and side of the part are to be applied.	
8	Lead pull	The part shall be pushed with a force of 9.8N for 10±1 seconds behind the part. 	After the test part shall meet specifications without any degradation in appearance and performance.
9	Solder heat resistance	The part leads (pins) shall be immersed in molten solder maintained at 250±10℃ for a period of 30 seconds.	After the test part shall meet specifications without any degradation in appearance and performance.
10	Recommended temp. Profile for Reflow Oven	Shown in Fig.1	
Warranty:For a period of one year from date of manufcture under normal operations.			

6.Recommended Temp. Profile for Reflow Oven (Fig.1)

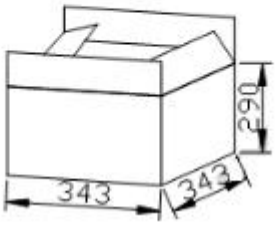


Profile Feature	Pb-Free Assembly
Average ramp-up rate(T_L to Tp)	3℃/second max.
Preheat	
-Temperature Min.(Ts_{min})	150℃
-Temperature Min.(Ts_{max})	200℃
-Temperature Min.(ts)	60～180 seconds
Ts_{max} to T_L	
-Ramp-up Rate	3℃/second max.
Time maintained above:	
- Temperature(T_L)	217℃
-Time(T_L)	60～150 seconds
Peak temperature(Tp)	260℃+0/-5℃
Time within 5℃of actual Peak temperature (tp)	6 seconds max.
Ramp-down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8 minutes max.

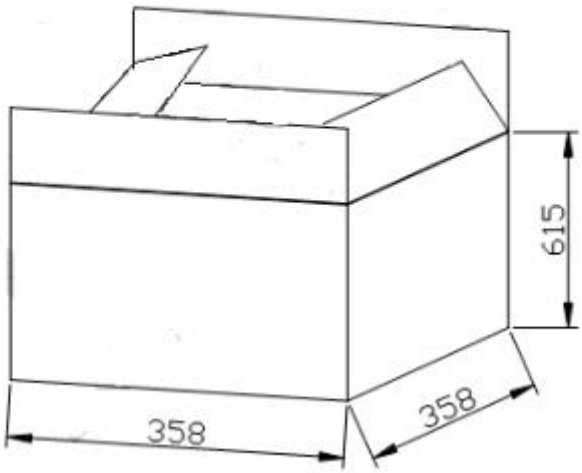
7.PARKING



2000PCS/SPOOL



5SPOOL/BOX



2SMALL BOX/BIG BOX
20000PCS/BIG BOX