G85

International Components Corporation

215 McCormick Drive, Bohemia, NY 11716
631-952-9595 Fax 631-95209597
www.icc107.com

A. SCOPE

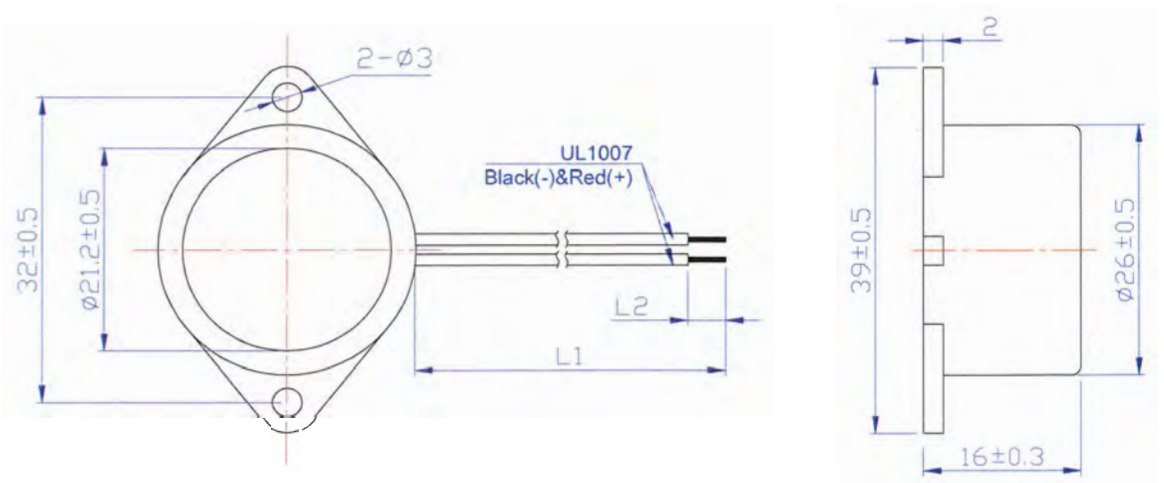
This specification applies active piezoelectric buzzer (waterproof function),

ICC/INTERVOX P/N: BRP2616L-12-C-WP

B. CHARACTERISTICS

#	Item	Unit	Specification	Remark
1	Resonant Frequency	KHz	2.8 ± 0.5	
2	Operating Voltage	V	3 ~ 15	DC
3	Rated Voltage	V	12	DC
4	Current Consumption	mA	Max 30	@ rated voltage
5	Sound Pressure Level	dB	Min 85	30cm, A Weighted
6	Operating Temperature	℃	-30 ~ +70	
7	Storage Temperature	℃	-40 ~ +80	
8	Dimension	mm	Φ26 x H16	Refer mechanical specification
9	Weight (max)	gram	10	
10	Housing Material	/	ABS(Black)	UL94HB
11	Leading Wire	/	AWG26	L1=110±5, L2=3±1
12	Tone/ Pulse Rate	/	Constant	
13	IP Protection Level	/	IP67	
14	GP Compliance	/	RoHS	

C. MECHANICAL DIMENSION



Unit: mm

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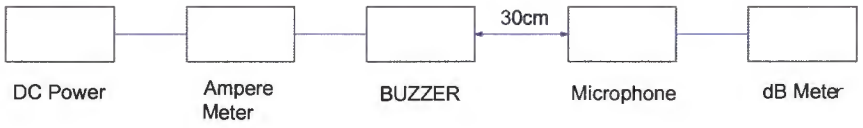
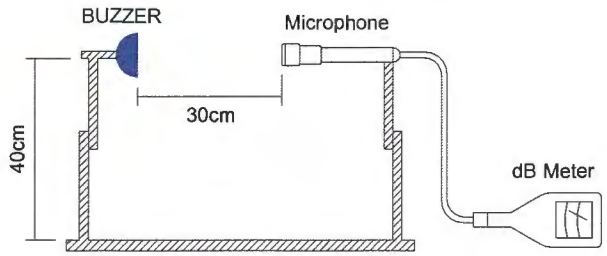
D. FUNCTION TEST – ICC P/N BRP2616L-12-C-WP

Environment Conditions: Temperature: 25±2□ Humidity: 45-60%

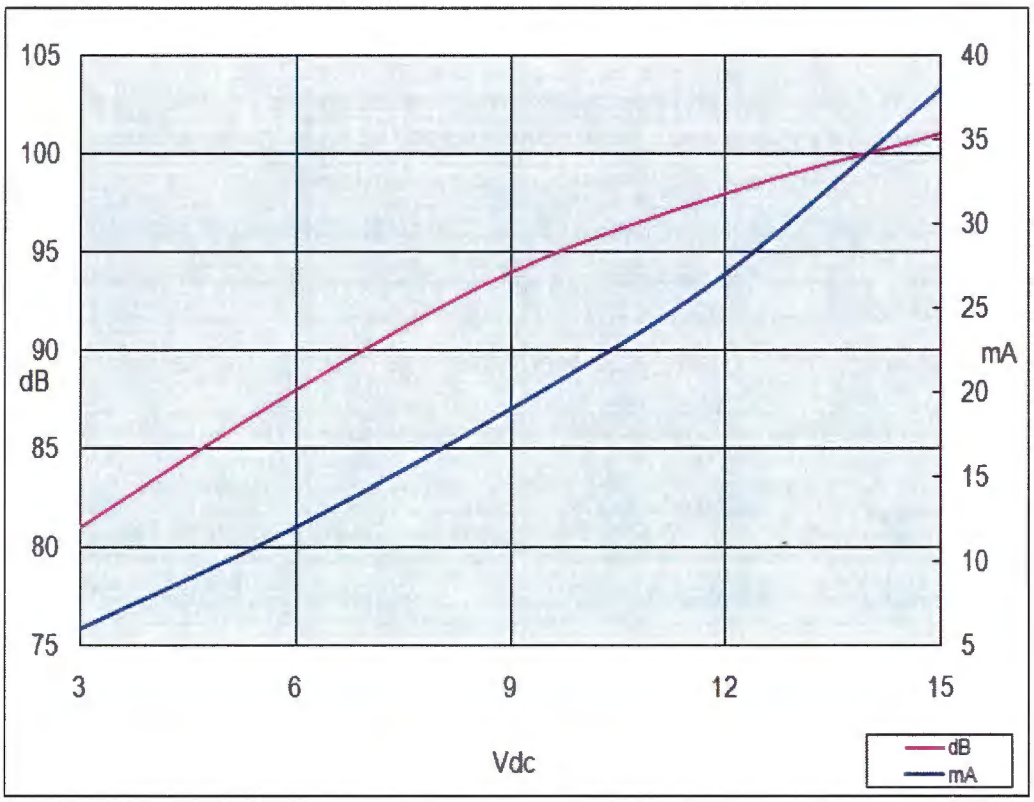
Acoustic Characteristics: The oscillation frequency, current consumption and sound pressure are tested by the testing instruments shown below



in this test, buzzer is placed as below:



E. VOLTAGE/ CURRENT/ SOUND PRESURE CURVE



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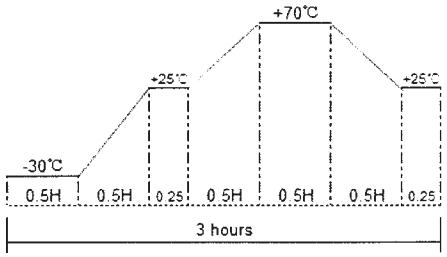
F. RELIABILITY TEST – ICC P/N BRP2616L-12-C-WP

#	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	Place the test samples in a chamber with +80±2°C for 96 hours and then place the samples in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
2	Low Temperature Test (Storage)	Place the test samples in a chamber with -40±2°C for 96 hours and then place the samples in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
3	Humidity Test	Place the test samples in a chamber with 90-95% R.H. at +40±2°C for 96 hours and then place the samples in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
4	Temperature Cycle Test	The buzzers shall be subjected to 5 cycles. One cycle should include:  Allowable variation of SPL after test: ±10dB.
5	Drop Test	Drop on a hard wood board of 4cm thick, any directions 6 times, at the height of 75cm. Allowable variation of SPL after test: ±10dB.
6	Vibration Test	Being applied the amplitude of 1.5mm (peak to peak) with the frequency of 10Hz to 55Hz (linear sweep) to each of 3 perpendicular directions for 1 hour. Allowable variation of SPL after the test: ±10dB.
7	Waterproof Test	Put the samples into the depth of 100cm water for 0.5 hour (30 minutes). No water inflow the buzzer. Allowable variation of SPL after the test: ±5dB.

Standard Mode: a) Temperature: +5 ~ +35°C
b) Humidity: 45-85%
c) Pressure: 860-1060 mbar

Judgment Mode: a) Temperature: +25 ± 2°C
b) Humidity: 60-70%
c) Pressure: 860-1060 mbar

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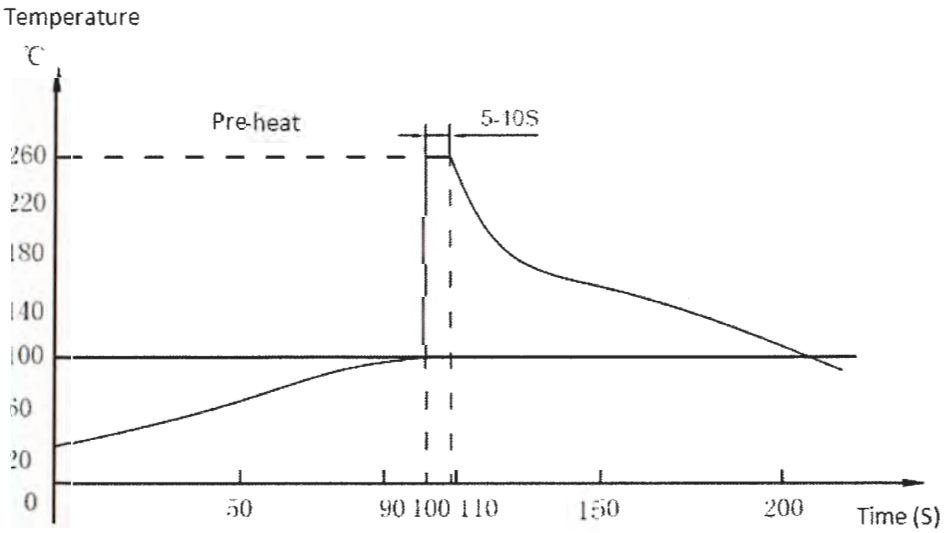
G. RECOMMENDED WAVE SOLDERING PROFILE
ICC P/N BRP2616L-12-C-WP

Profile Feature	Pb-Free Wave Soldering
Pre-heat	
-Temperature	From 20ºC to 120ºC
-Time	30~120 seconds
Temperature Ramp-up	Max 3ºC per second
Soldering Stage	
-Temperature	260+5/-10ºC (250ºC~265ºC)
-Time	5~10 seconds
Ramp Down Rate	Max 6ºC per second
Temperature Gradient (Peak with Pre-heat)	Max 150ºC



Lead Free Wave Soldering Profile

Notes:

1) The Max. Maintenance temperature of plastic shell is 80ºC;
2) If hand welding is required in production, the recommended electric soldering iron temperature is 380±20 ºC, less than 2 seconds;