Challenge Electronics
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PRODUCT INFORMATION

PART #	CEEB120B075-205C23P7.6LR	Revision: 0-2012

RoHS COMPLIANCE

Electro-Magnetic Buzzer

DESCRIPTION

Challenge **E**lectronics **E**lectro-Magnetic **B**uzzer, **12.0** mm Diameter, **B** type case (TOP Sound Port with PCB standoffs), **7.5** mm High, **2** to **5** Vdc operation, **C**ontinuous Tone, minimum SPL of 83 dB(A) at: 3 Vdc, 10 cm, **2,3**00 Hz. resonant Frequency, **P**C Pins **7.6** mm spacing Termination, washing **L**abel, **R**oHS Lead Free Compliance

FEATURES

- **Expanded Operating Temperature**
- **Washable**
- **RoHS, Lead Free Compliant**
- **ISO 9001 & TS16949 Certified**

SPECIFICATIONS

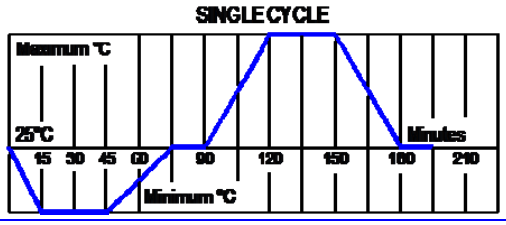
Sound Type	**Continuous Tone**	**Operating Voltage**	**2.0 – 5.0 Vdc**	**Rated Voltage**	**3.0 Vdc**
Sound Pressure Level	**Minimum 83 dB(A)** at: Rated Voltage, 10 cm, 25 ºC				
Operating Current	**Maximum 30 mA** at Rated Voltage, 25 ºC				
Resonant Frequency	**2,300 ± 400 Hz.**	**Operating Temperature**	**-30ºC to + 70ºC**	**Storage Temperature**	**-40ºC to +85ºC**

Material	**Case**	**B Style, Plastic, Noryl, Black**
	Encapsulation	**Epoxy Potting**
	Termination	**Two (2) PC Pins, 0.6 mm Diameter, Copper, Sn plated, Positive Pin 5.5 mm Long, Negative Pin 4.0 mm Long**

Physical Dimensions	**Length or Diameter (L /D)**	**12.0 mm ø**	**Width (W)**		**Height (H)**	**7.5 mm**	**Pins Spacing**	**7.6 mm**
Approximate Weight	**1.8 grams**	**Removable Washing Label**	**Yes**	**Compliance**	**RoHS, Lead Free**			

RELIABILITY

Thermal Operating Temperature Test		**96 hours** continuous operation **at Rated Voltage**, at **Maximum Rated Operating Temperature** *
		96 hours continuous operation **at Rated Voltage**, at **Minimum Rated Operating Temperature** *
Thermal Storage Temperature Test		**96 hours** storage at **Maximum Rated Storage Temperatures** *
		96 hours storage at **Minimum Rated Storage Temperatures** *
Thermal Shock Test		**5 cycles** of Minimum and **Maximum Operating Temperature** Each cycle shell be set per diagram below and is three (3) hours long *
Humidity Test		**96 Hours** at +40°C±2°C. 90-95% RH *
Insulation Test		A minimum of 10 MΩ, measured with 100 Vdc Insulation Resistance Meter, between the Electrical Terminals and the Transducer Case
Vibration Test		2 Hours of at 0.75 mm with 10 to 55 Hz. vibration frequency to each of 3 perpendicular directions *
Termination Strength		Maximum of 9.8 N (1.0 Kg) load pull test, applied to each terminal in axial direction for **10 seconds**
Drop Test		Dropped naturally from 750 mm height onto the surface of 40 mm wooden board, 3 axes (X,Y,Z) directions, 3 times (9 times total) *
Solderability		Terminal leads are immersed in rosin for 5 seconds and then immersed in solder-bath of +270°C for 3±1 seconds
Soldering Heat Resistance		Terminal leads are immersed, up to 0.75 mm from part case, in rosin for 5 seconds and then immersed in solder-bath of +350±5°C for 3±0.5 seconds or +260±5°C for 10±1 seconds
* **Reliability Test Performance**		**Parts should conform to original performance within ±3dB, after 3 hours of recovery period**
Operation Life Test	**Continuous**	**96 hours** of continuous operation, at **Rated Voltage**, each at Minimum & Maximum Rated Operating Temperatures
	Intermittent	One thousand (1,000) hours of: 1 minute **ON** 4 minutes **OFF** cycle, at Room Temperature, and **Rated Voltage**
Warranty		For a period of one (1) year from date of shipping under normal operations conditions This warranty does not apply to products damaged through misuse, abuse, improper installation, alteration, rework, or attempt to repair



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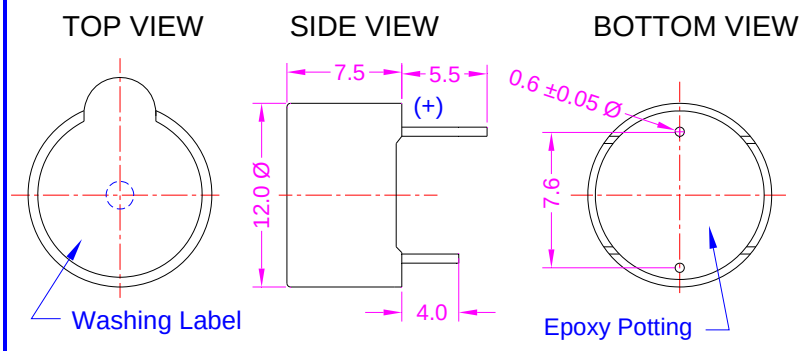
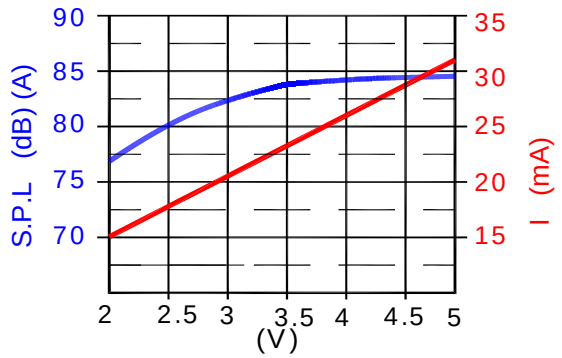
DIMENSIONS

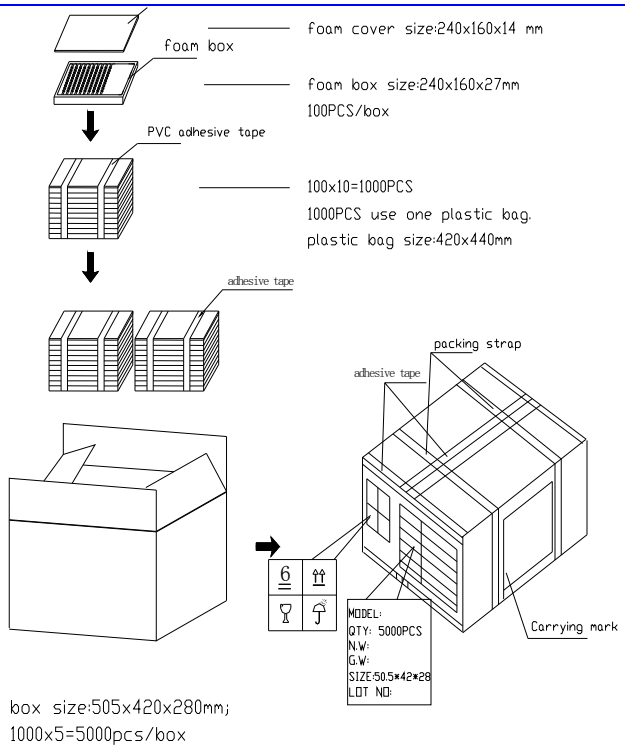
Units in: mm, Tolerance: ± 0.5mm unless specified otherwise.



SPL vs. FREQUENCY RESPONSE



PACKAGING



MARKING	TRAY		
Bundle	Dimensions	**X1**	**24 cm**
Customer PN		**Y1**	**16 cm**
Other PN (if required)		**Z1**	**2.7 cm**
Quantity	Quantity		**100**
Lot and/or Date Code	**BUNDLE**		
Bundle Number	Dimensions	**X2**	**24 cm**
Shipping Box		**Y2**	**16 cm**
Customer Part Number		**Z2**	**23 cm**
Other PN (if required)	Quantity		**1,000**
Quantity	**SHIPPING BOX**		
Lot and/or Date Code	Dimensions	**X3**	**50.5 cm**
PO Number		**Y3**	**42 cm**
Net Weight		**Z3**	**28 cm**
Gross Weighjt	Number of Bundles		**5**
Box Number	Quantity		**5,000**
of Number of Boxes	Approximate Weight		**10 kg**
Made in China			