



**PRODUCT INFORMATION**  
 Part #: **CE-C80A**

Revision: 11-2015

**Extra Loud Miniature Piezoelectric Alarm**

DESCRIPTION	FEATURES
<b>Challenge Electronics CONTINUOUS Tone; EXTRA Loud; 5 to 16 Vdc</b> with a relatively low sound frequency of <b>2,900 Hz.</b> ; <b>M</b> style <b>Gray</b> case; <b>25.1 mm</b> Diameter, <b>22.2 mm</b> High; Sound Pressure Level of <b>102 dB(A)</b> at nominal Voltage and 61 cm; <b>PC Pins</b> termination 0.60" (15.2 mm) Apart; with Removable Washing Label <b>Miniature Piezoelectric Alarm</b>	<ul style="list-style-type: none"> <li>◆ <b>Reliable Solid State Piezoelectric Technology</b></li> <li>◆ <b>Corrosion resistant Stainless Steel Diaphragm</b></li> <li>◆ <b>Flame Retardant Plastic</b></li> <li>◆ <b>Extended Storage Temperature</b></li> <li>◆ <b>Hermetically Sealed Alarm</b></li> <li>◆ <b>Water Proof, NEMA 3R, 4X, or 12</b></li> <li>◆ <b>RoHS, Lead Free Compliance</b></li> <li>◆ <b>ISO 9001:2008; ISO-TS 16949:2009 Certified</b></li> </ul>



**SPECIFICATIONS**

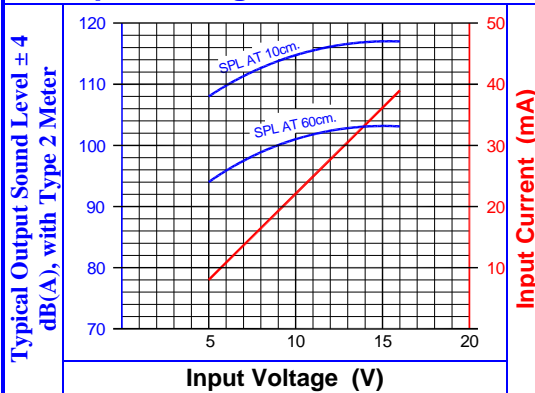
Operating Mode	Extra Loud, Continuous Tone		Pulse Rate			
Operating Voltage	5 to 16 Vdc	Nominal Operating Voltage	12 Vdc	Operating Frequency	2,900 ± 250 Hz.	
Typical Loudness	At 5 Vdc	94 ± 5 dB(A)	At 12 Vdc	102 ± 4 dB(A)	At 16 Vdc	103 ± 3 dB(A)
	SPL is measured at 24 inches (61 cm), 25°C, Sound Level meter # 2240, Type 2, Fast Response, A-Weighted					
Typical Operating Current	8 mA at 5 Vdc		30 mA at 12 Vdc		40 mA at 16 Vdc	
Operating Temperature	-30°C to +65°C	Storage Temperature	-40°C to +100°C			
Surge Voltage	20% over maximum Operating Voltage for less than 5 minutes					
Polarity Protection	Protected against Reversed Voltage to the Maximum Operating Voltage					
Materials	Alarm Case	Plastic, "M" Case, NORYL™, PX9406 or equal, flame retardant UL 94-V0, Gray				
	Diaphragm	Stainless Steel 304	Sound Port	Single opening Top Side		
	Encapsulation	Silicon Potting covering SMD components topped with 2 parts epoxy potting, Black				
	Termination	Two (2) PC pins, 0.032 Ø (0.8 Ø mm) Brass, Electro-Tin Plated. Centered on 0.6 inches (15.2 mm) Diameter pins spacing				
Physical Dimensions	Diameter	1.00" (25.4 mm) Ø	Height (H)	0.86" (21.8 mm)	PC Pins Spacing	0.60" (15.2 mm)
Approximate Weight	11 grams	Removable Washing Label	Yes	Compliance	RoHS, Lead Free, REACH	
Available Options						

**RELIABILITY**

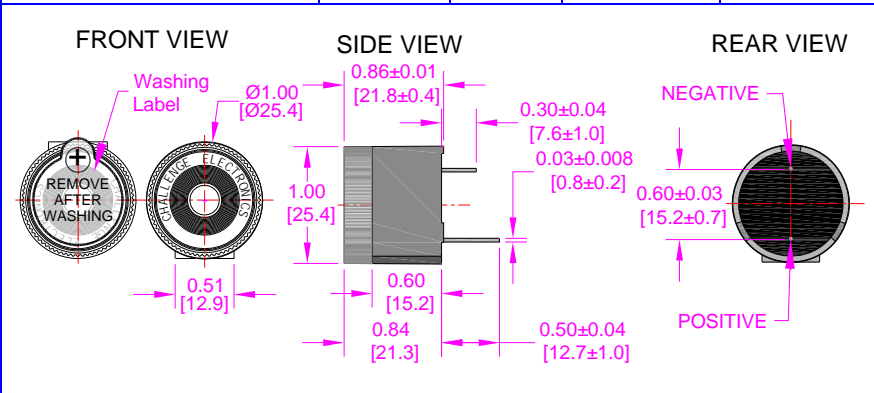
Thermal Operating Temperature Test	96 hours continuous operation at Rated Power, at Maximum Rated Operating Temperature *
	96 hours continuous operation at Rated Power, at Minimum Rated Operating Temperature *
Thermal Storage Temperature Test	96 hours storage at Maximum Rated Storage Temperatures *
	96 hours storage at Minimum Rated Storage Temperatures *
Thermal Shock Test	5 cycles of Minimum and Maximum Operating Temperature Each cycle shall be set per diagram below and is 3 hours long * <div style="text-align: right;"> </div>
Humidity Test	120 Hours at +60°C±2°C, 90-95% RH *
Salt Spray	Withstand exposure to salt spray per ASTM B117 for a period of 300 hours *
Water & Dust Exposure	Withstands water submergence and dust exposure per IP-68 *
Vibration Test	2 Hours at 1.5 mm with 10 to 55 Hz. of vibration frequency to each of 3 perpendicular direction *
Drop Test	Dropped naturally from 1 meter height onto the surface of 10mm wooden board, 2 directions upper and side of the part are applied *
Termination Strength	Maximum of 15 pounds (6.8 Kg) load pull test
* Reliability Test Performance	Parts should conform to original performance within ±3dB, after 3 hours of recovery and dry period
Life Test	Intermittent 1,000 hours of a 1 minute on 4 minutes off cycle at room temperature and maximum Operating Voltage
	Continuous 250 hours continuous operation at maximum Operating Voltage and maximum Operating Temperatures
Warranty	For a period of two (2) years 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



**Current Draw and Loudness Vs. Input Voltage**



**DIMENSIONS**



**ALARM MARKING**

On Case side:	<b>Part Number</b>	<b>Note:</b> Date Code consists of 2 Digits for year number and 2 Digits for week of production, Last Digit for day of the week
	<b>Operating Voltage Range / Date Code</b>	
	<b>Sound Type</b>	
	<b>Made in China</b>	

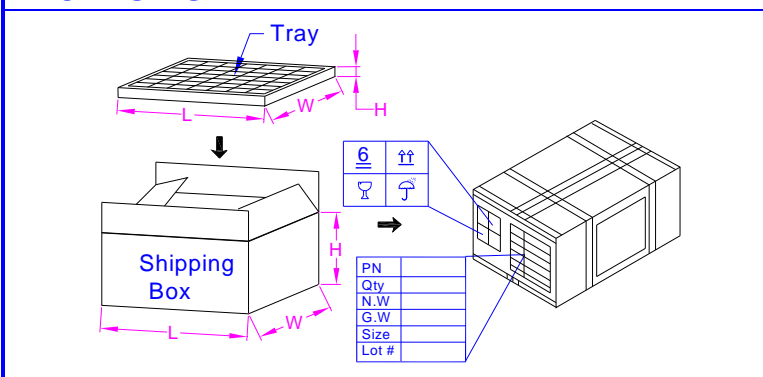
**SUBSTANCE OF VERY HIGH CONCERN (REACH) and RoHS LEAD FREE COMPLIANCE**

This product does NOT contain any of the REACH Substances of Very High Concern (SVHC), and is in compliance with European Union REACH Regulation No.1907/2006 regarding chemical substances which must be registered or disclosed.

Cadmium (Cd) / Cadmium Compounds	≤ 100 ppm	In compliance	Poly Brominated Biphenyls (PBB)	≤1,000 ppm	In compliance
Lead (Pb) / Lead Compounds	≤1,000 ppm	≤ 10,000 ppm (*)	Poly Brominated Diphenyl Ethers (PBDE)	≤1,000 ppm	In compliance
Mercury (Hg) / Mercury Compounds	≤1,000 ppm	In compliance	Arsenic (As)	≤1,000 ppm	In compliance
Hexavalent-Chromium (Cr6+)	≤1,000 ppm	In compliance			

(\*) European Union Directive 2011/65/EU (RoHS Directive) of the European Parliament. And of the Council of 8 June 2011 and all subsequent amendments. The ANNEX III of the Directive Applications exempted from the restriction in Article 4(1): 7(c)-I, Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. Piezoelectric devices, or in a glass or ceramic matrix compound Piezoelectric is also known as Lead Zirconate Titanate (PZT) ceramics. Piezoelectric Ceramic disc, (PZT), lead as high covalent compound in the ceramic matrix to achieve good ferroelectric properties in a wide temperature range. The best-known performances can be reached with PZT ceramics, which are a mixture of PbTiO3 and PbZrO3. The lead content, homogeneous material compound is between 58% and 68% by weight depending on the proportion of zirconium (Zr) and titanium (Ti).

**PACKAGING**



Shipping Box MARKING		FOAM TRAY	
Part Number	Dimensions	L	34 cm
Other PN (if required)		W	19 cm
Lot and/or Date Code		H	4.3 cm
Quantity	Quantity	50	
PO Number	SHIPPING BOX		
Net Weight	Dimensions	L	40 cm
Gross Weight		W	37.5 cm
Box Number of Boxes		H	40 cm
Made in China	Number of Trays	20	
	Quantity	1,000	
	Approximate Weight	12 Kg.	

Revision	Description	By	Date
8-2013	Updated Specifications Format	Ely Zofan	4/10/2013
9-2013	Added parameters at Nominal Voltage	Ely Zofan	6/4/2013
10-2014	Modified the SPL Specification Format	Ely Zofan	3/19/2014
11-2015	Added SubstanceE of Very High Concern & RoHS Compliance, and Extended the warranty period	Ely Zofan	1/13/2015