



# PRODUCT INFORMATION

Part #: **CE-C75**

Revision: 5-2015

## Loud Miniature Piezoelectric Alarm

DESCRIPTION	FEATURES
<p><b>Challenge Electronics CONTINUOUS Tone; Loud; 3 to 18 Vdc</b> with a relatively low sound frequency of <b>3,000 Hz.</b>; <b>M Black</b> style case; <b>25.1 mm</b> Diameter, <b>22.2 mm</b> High; Sound Pressure Level of <b>100 dB(A)</b> at 18 Vdc at 61 cm; <b>PC Pins</b> termination; <b>RoHS Compliant</b>; <b>Miniature Piezoelectric Alarm</b></p>	<ul style="list-style-type: none"> <li>◆ Reliable Solid State Piezoelectric Technology</li> <li>◆ Corrosion resistant Stainless Steel Diaphragm</li> <li>◆ Flame Retardant Plastic</li> <li>◆ Hermetically Sealed Alarm</li> <li>◆ Water Proof, NEMA 3R, 4X, or 12</li> <li>◆ RoHS, Lead Free Compliance</li> <li>◆ ISO 9001:2008 Certified</li> </ul>

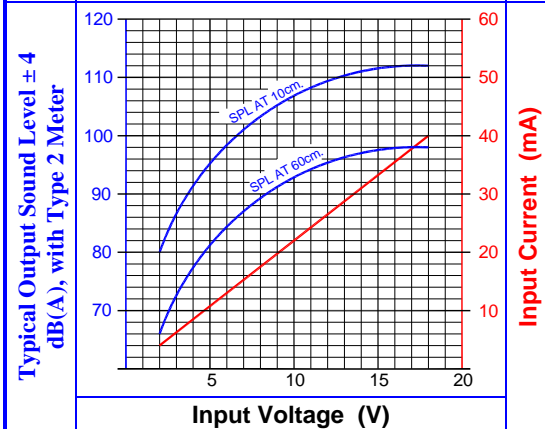


SPECIFICATIONS	
Operating Mode	Loud, Continuous Tones <span style="float: right;">Pulse Rate</span>
Operating Voltage	3 to 18 Vdc <span style="margin-left: 20px;">Nominal Operating Voltage</span> 12.0 Vdc <span style="margin-left: 20px;">Operating Frequency</span> 3,000 ± 500 Hz.
Typical Loudness	At 3 Vdc 78 ± 6 dB(A) <span style="margin-left: 20px;">At 12 Vdc</span> 96 ± 4 dB(A) <span style="margin-left: 20px;">At 18 Vdc</span> 100 ± 4 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	5 mA at 3 Vdc <span style="margin-left: 20px;">28 mA at 12 Vdc</span> <span style="margin-left: 20px;">40 mA at 18 Vdc</span>
Operating Temperature	-30°C to +65°C <span style="margin-left: 20px;">Storage Temperature</span> -40°C to +85°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 PCB mounted, M Case, plastic, ABS-777D or equal, flame retardant, Black
	Diaphragm Stainless Steel 304 <span style="float: right;">Sound Port</span> 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	Length or Diameter (L / D) 1.00" (25.4 mm) Ø <span style="margin-left: 20px;">Width (W)</span> <span style="margin-left: 20px;">Height (H)</span> 0.88" (22.2 mm)
Approximate Weight	18 grams <span style="margin-left: 20px;">Removable Washing Label</span> No <span style="margin-left: 20px;">Compliance</span> RoHS, Lead Free, REACH
Available Options	

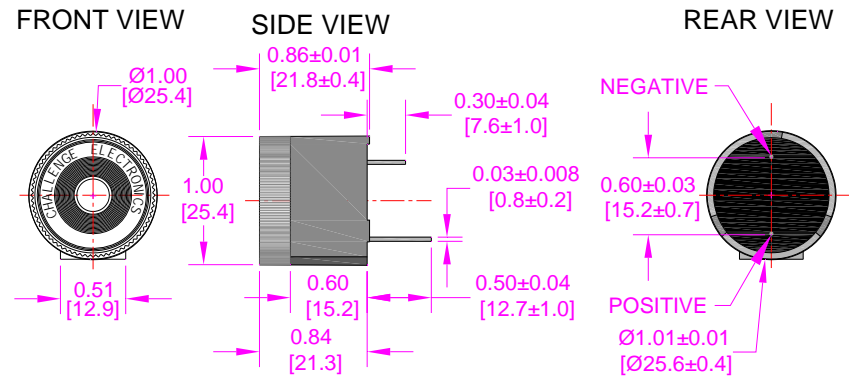
RELIABILITY	
Thermal Operating Temperature Test	96 hours continuous operation at Rated Power, at Maximum Rated Operating Temperature * 96 hours continuous operation at Rated Power, at Minimum Rated Operating Temperature *
Thermal Storage Temperature Test	96 hours storage at Maximum Rated Storage Temperatures * 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: center;"> <p><b>SINGLE CYCLE</b></p> <p>Maximum °C</p> <p>25°C</p> <p>Minutes</p> <p>15 30 45 60 90 120 150 180 210</p> <p>Minimum °C</p> </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**



Units	Inches (mm)	Tolerance	0.030 (0.7)
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**ALARM MARKING**

<b>On Case side:</b>	<b>Challenge Electronics</b> <b>Part Number</b> <b>Sound Type</b> <b>Operating Voltage Range / Date Code</b> <b>Made in China</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
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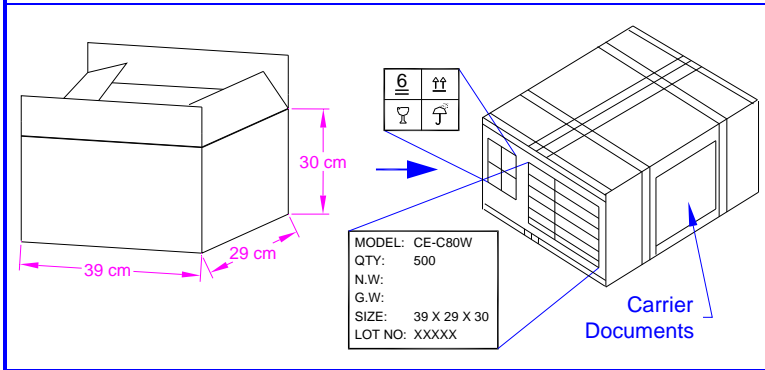
**SUBSTANCE OF VERY HIGH CONCERN (REACH) and RoHS LEAD FREE COMPLIANCE**

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		TRAY			
Part Number	Dimensions	L			
Other PN (if required)		W			
Lot and/or Date Code		H			
Quantity	Quantity	30			
PO Number	SHIPPING BOX				
Net Weight				L	50 cm
Gross Weight				W	26 cm
Box Number of Boxes				H	49 cm
Made in China	Number of Trays	20			
	Quantity	600			
	Approximate Weight	8.3 Kg.			

Revision	Description	By	Date
3-2012	Adjusted Resonant Frequency from 2,900 to 3,000 Hz.	Ely Zofan	6/3/2013
4-2014	Modified the SPL Specification Format	Ely Zofan	3/19/2014
5-2015	Added SubstanceE of Very High Concern & RoHS Compliance, and Extended the warranty period	Ely Zofan	1/14/2015