



PRODUCT INFORMATION

Part #: **CE-C55**

Revision: 0-2013



DESCRIPTION		FEATURES			
Challenge Electronics CONTINUOUS Tone; EXTRA Loud, 25.1 mm Diameter, 22.2 mm High; 2 to 6 Vdc with a relatively low sound frequency of 3,000 Hz.; M Black style case; Sound Pressure Level of 98 dB(A) at 5 Vdc at 61 cm; PC Pins termination; RoHS Compliant; Miniature Piezoelectric Alarm		<ul style="list-style-type: none"> ◆ Reliable Solid State Piezoelectric Technology ◆ Corrosion resistant Stainless Steel Diaphragm ◆ Flame Retardant Plastic ◆ Hermetically Sealed Alarm ◆ Water and Dust Proof per IP-68 ◆ RoHS Compliance ◆ ISO 9001 Certified 			
SPECIFICATIONS					
Operating Mode	Extra Loud, Continuous Tones	Pulse Rate			
Operating Voltage	2.0 to 6.0 Vdc	Nominal Operating Voltage	5.0 Vdc		
Operating Frequency	3,000 ± 500 Hz.				
Typical Loudness	At Minimum Voltage	102 ± 7 dB(A), at 2 Vdc, 3.94 inches (10 cm), 25°C 88 ± 7 dB(A), at 2 Vdc, 24 inches (61 cm), 25°C			
	At Nominal Voltage	112 ± 5 dB(A), at 5 Vdc, 3.94 inches (10 cm), 25°C 98 ± 5 dB(A), at 5 Vdc, 24 inches (61 cm), 25°C			
	At Maximum Voltage	112 ± 5 dB(A), at 6 Vdc, 3.94 inches (10 cm), 25°C 98 ± 5 dB(A), at 6 Vdc, 24 inches (61 cm), 25°C			
Typical Operating Current	10 mA at 2 Vdc	33 mA at 5 Vdc	38 mA at 6 Vdc		
Operating Temperature	-30°C to +65°C	Storage Temperature	-40°C to +85°C		
Surge Voltage	20% over maximum Operating Voltage for less than 5 minutes				
Materials	Alarm Case	Plastic, "M" Case, NORYL™, PX9406 or equal, flame retardant UL 94-V0, Black			
	Diaphragm	Stainless Steel 304	Encapsulation Two parts epoxy resin or silicone 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	Width (W)	Height (H)	0.88" (22.2 mm)
Approximate Weight	18 grams	Removable Washing Label	No	Compliance	RoHS
Available Options					
RELIABILITY					
Thermal Operating Temperature Test	240 hours continuous operation at Rated Power , at Maximum Rated Operating Temperature *				
	240 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 *				<p>SINGLE CYCLE</p> <p>The graph shows a temperature profile over 210 minutes. It starts at 25°C, drops to a minimum temperature, stays at that minimum for 90 minutes, then rises back to 25°C. The x-axis is labeled 'Minutes' with markers at 15, 30, 45, 60, 90, 120, 150, 180, and 210. The y-axis is labeled 'Maximum °C' and 'Minimum °C'.</p>
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 rated voltage			
	Continuous	250 hours continuous operation at maximum rated Voltage and maximum Operating Temperatures			
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				



Current Draw and Loudness Vs. Input Voltage		DIMENSIONS		Units	Inches (mm)	Tolerance	0.030 (0.7)																
Typical Output Sound Level ±4 dB(A), with Type 2 Meter			FRONT VIEW 		SIDE VIEW 		REAR VIEW 																
	PACKAGING		ONE TRAY: 		TWO BUNDLE: 		MARKING																
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