



PRODUCT INFORMATION

PART #	CEET14E050-40-104-20PR	Revision: 2-2011
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Electromagnetic Sound Transducer

DESCRIPTION	FEATURES
<p>Challenge Electronics Electromagnetic Transducer, 14.0 mm Diameter, E type case (TOP Sound Port with PCB standoffs), 5.0 mm High, 40 Ohms Coil Impedance, 1 to 4 Vpp operation, SPL of 85 dB(A) at: Rated Voltage, 10 cm, 2,000 Hz. resonant Frequency, PC Pins 7.6 mm spacing Termination, RoHS Lead Free Compliance</p>	<ul style="list-style-type: none"> ● RoHS, Lead Free Compliant ● ISO 9001

SPECIFICATIONS

Operating Voltage	1.0 – 4.0 Vpp	Rated Voltage	3.0 Vpp	Resonant Frequency	2,000 ± 30 Hz.	Coil Resistance	40 ± 6 Ohms	
Sound Pressure Level	85 dB(A), at: Rated Voltage, Resonant Frequency, Square Wave, 50% Duty Cycle 10 cm							
Operating Current	35 mA, at: Rated Voltage, Resonant Frequency, Square Wave, 50% Duty Cycle							
Operating Temperature	-30°C to + 70°C			Storage Temperature	-40°C to +85°C			
Material	Case	Plastic, Noryl PX9406, Black, UL 94-V0 (UL # E207780)						
	Diaphragm	Nickel Allot, N50						
	Termination	PC Pins, 0.6 mm Diameter, Brass, Sn plated			Encapsulation	PCB		
Physical Dimensions	Length or Diameter (L /D)	14.0 mm Ø	Width (W)		Height (H)	5.0 mm	Pins Spacing	7.6 mm
Approximate Weight	2 grams	Removable Washing Label	No	Compliance	Lead Free, RoHS			
Options								

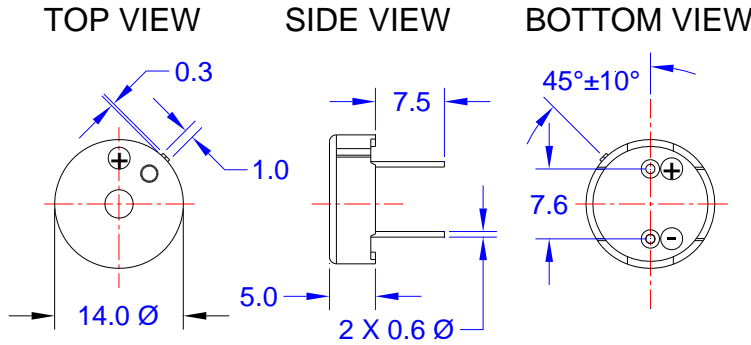
RELIABILITY

Thermal Operating Temperature Test	240 hours continuous operation at Rated Voltage , at Maximum Rated Operating Temperature *
	240 hours continuous operation at Rated Voltage , at Minimum Rated Operating Temperature *
Thermal Storage Temperature Test	240 hours storage at Maximum Rated Storage Temperatures *
	240 hours storage at Minimum Rated Storage Temperatures *
Thermal Shock Test	<p>5 cycles of Minimum and Maximum Operating Temperature, Each cycle shall be set per diagram below and is three (3) hours long *</p>
Humidity Test	240 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 1.5 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 (6 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 1.5 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
	Intermittent
Warranty	For a period of one (1) year from date of shipping under normal operations conditions

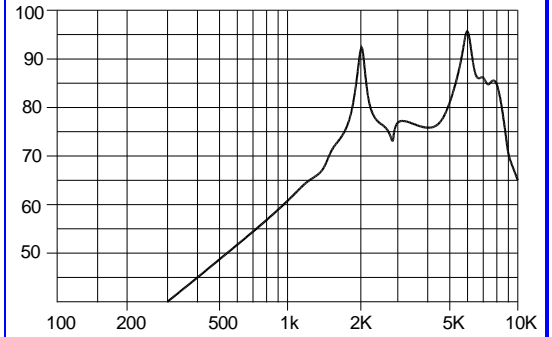


DIMENSIONS

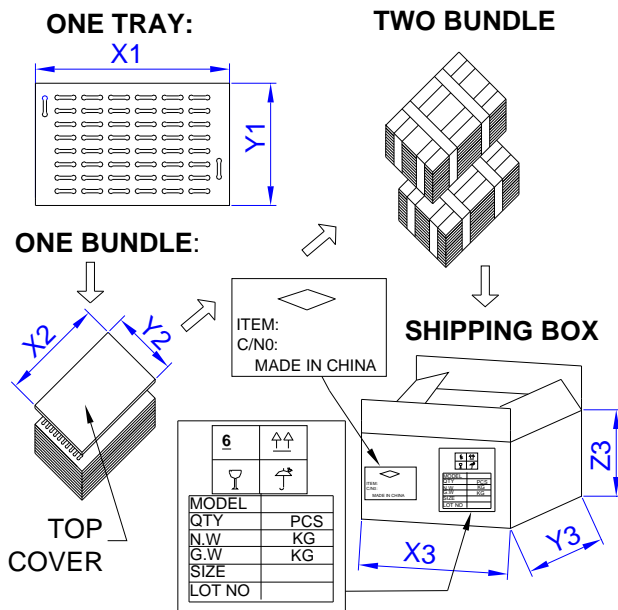
Units in: mm, Tolerance: ± 0.5mm unless specified otherwise.



SPL vs. FREQUENCY RESPONSE



PACKAGING



MARKING		TRAY	
Bundle	Dimensions	X1	
Customer PN		Y1	
Other PN (if required)	Quantity	100	
Quantity	BUNDLE		
Lot and/or Date Code	Dimensions	X2	
Bundle Number		Y2	
Shipping Box	Quantity		
Customer Part Number	SHIPPING BOX		
Other PN (if required)	Dimensions	X3	
Quantity		Y3	
Lot and/or Date Code		Z3	
PO Number	Number of Bundles		
Net Weight	Quantity	5,000	
Gross Weight	Approximate Weight		
Box Number			
of Number of Boxes			
Made in China			