



PRODUCT INFORMATION

PART #	Abbreviated	CET120B-308LHR	Revision: 4-2013
	Full	CET120B090-47-308-24P6.5LHR	

	<h2>Electro-Magnetic Sound Transducer</h2>
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DESCRIPTION	FEATURES	
Challenge Electronics Electro-Magnetic Transducer, 12.0 mm Diameter, B type case (TOP Sound Port with PCB standoffs), 9.0 mm High, 47 Ohms Coil Impedance, 3 to 8 Vo-p operation, Typical SPL of 90 dB(A) at: Rated Voltage, 10 cm, 2,400 and 3,600 Hz. resonant Frequencies, PC Pins 6.5 mm spacing Termination, Washing Label, H Expanded Operating Temperature, RoHS Lead Free Compliance	Expanded Operating Temperature Washable RoHS, Lead Free Compliant ISO 9001 & TS16949 Certified	

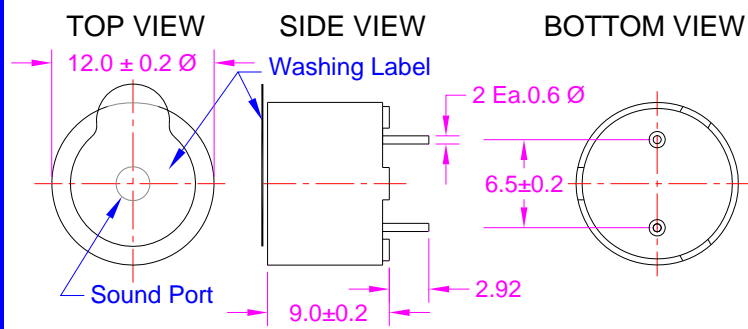
SPECIFICATIONS								
Operating Voltage	3 – 8 Vo-p	Rated Voltage	5 Vo-p	Resonant Frequencies	2,400 & 3,600 Hz.			
Sound Pressure Level	Min. 85 dB(A), Typ. 90 dB(A), at: Rated Voltage, 10 cm, Resonant Frequency, Square Wave, 50% Duty Cycle							
Operating Current	40 mA, 100 mA Peak, at: Rated Voltage, Resonant Frequency, Square Wave, 50% Duty Cycle							
Coil Resistance	47 ± 5 Ohms	Operating Temperature	-40°C to + 85°C	Storage Temperature	-40°C to +95°C			
Material	Case	B Style, Plastic, PBT, Black			Sound Port Direction	Top		
	Diaphragm				Sealing	Epoxy Filled		
	Termination	Two (2) PC Pins, 0.6 mm Diameter, 2.92 mm Long, Copper, Sn plated						
Physical Dimensions	Length or Diameter (L /D)	12.0 mm ø	Width (W)		Height (H)	9.0 mm	Pins Spacing	6.5 mm
Approximate Weight	2 grams	Removable Washing Label	Yes	Compliance	RoHS, Lead Free			

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	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 three (3) hours long *	
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 (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 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	240 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	

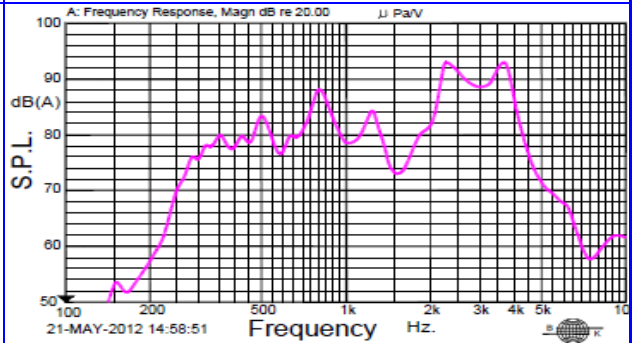


DIMENSIONS

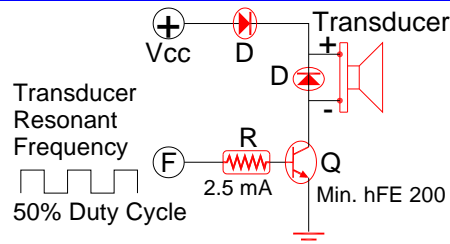
Units in: mm, Tolerance: ± 0.5 mm unless specified otherwise



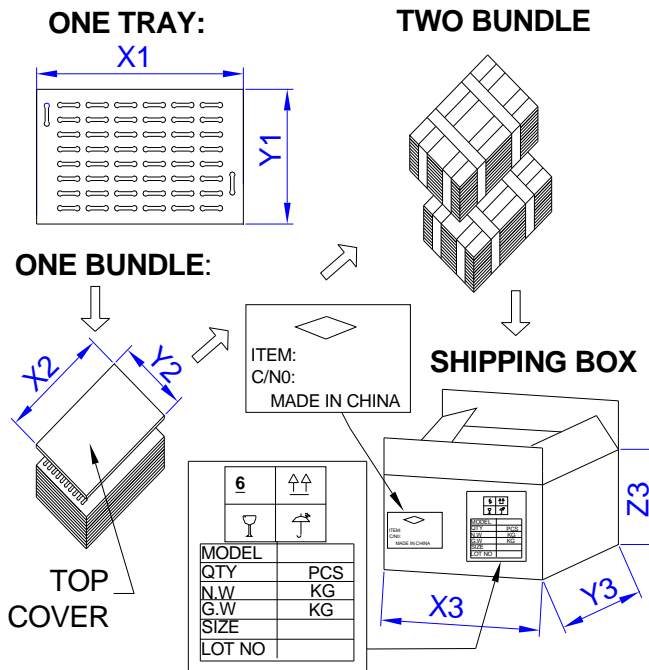
SPL vs. FREQUENCY RESPONSE



RECOMMENDED DRIVE CIRCUIT



PACKAGING



MARKING		TRAY	
Bundle		X1	24 cm
Customer PN	Dimensions	Y1	16 cm
Other PN (if required)		Z1	2.8 cm
Quantity	Quantity	100	
Lot and/or Date Code	BUNDLE		
Bundle Number	Dimensions	X2	24cm
Shipping Box		Y2	16 cm
Customer Part Number	Z2	24 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 Weight	Number of Bundles	5	
Box Number	Quantity	5,000	
of Number of Boxes	Approximate Weight		
Made in China			

Revision	Description	By	Date
4-2013	Modified PC Pins Length from 5.5 mm to 2.92 mm	Ely Zofan	3/21/2013

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