




PRODUCT INFORMATION

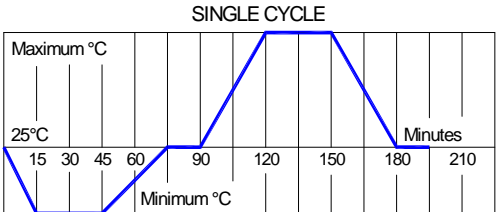
Abbreviated PN	CEMT250B-12PLR	Revision: 4-2012
Part #	CEMT250B125-12C15PLR	



Electro-Magnetic Sound Transducer

DESCRIPTION	FEATURES	
Challenge Electronics Electro-Magnetic Transducer, 25.0 mm Diameter, B type case (TOP Sound Port with PCB standoffs), 12.5 mm High, 120 Ohms Coil Impedance, 8 to 16 Vo-p operation, Typical SPL of 110 dB(A) at: Rated Voltage, 10 cm, 1,500 Hz. resonant Frequency, PC Pins 10.2 mm spacing Termination, washing Label, RoHS Lead Free Compliance	<ul style="list-style-type: none"> • Washable • RoHS, Lead Free Compliant • ISO 9001 	

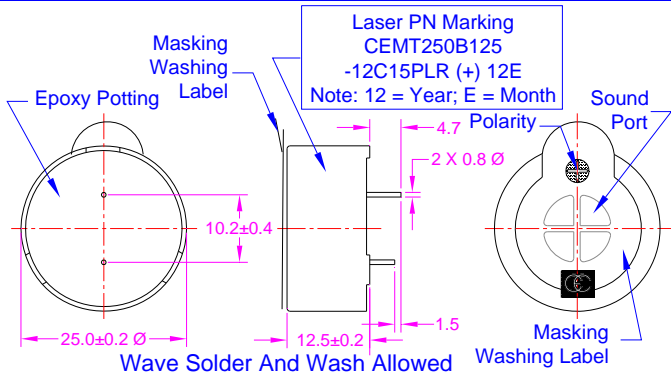
SPECIFICATIONS									
Operating Voltage	8.0 – 16.0 Vo-p	Rated Voltage	12.0 Vo-p	Resonant Frequency	1,500 ± 15 Hz.	Coil Resistance	120 ± 12 Ohms		
Sound Pressure Level	Typical 110 dB(A), Min. 104 dB(A), at: Rated Voltage, 10 cm, Resonant Frequency, Square Wave, 50% Duty Cycle								
Operating Current	55 mA, at: Rated Voltage, Resonant Frequency, Square Wave, 50% Duty Cycle								
Operating Temperature	-40°C to + 85°C		Storage Temperature	-40°C to +85°C					
Material	Case	B Style, Plastic, Noryl or equal, Black				Sound Port	Top		
	Encapsulation	Epoxy Potting							
	Termination	PC Pins, 0.8 mm Diameter, Brass, Sn plated, Positive Pin 4.7 mm Long, Negative Pin 3.2 mm Long							
Physical Dimensions	Length or Diameter (L/D)	25.0 mm Ø	Width (W)		Height (H)	12.5 mm	Pins Spacing	10.2 mm	
Approximate Weight	10 grams	Removable Washing Label	Yes	Compliance	Lead Free, RoHS				

RELIABILITY	
Thermal Operating Temperature Test	96 hours continuous operation at Rated Voltage , at Maximum Rated Operating Temperature *
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Thermal Storage Temperature Test	96 hours storage at Maximum Rated Storage Temperatures *
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Thermal Shock Test	<p>5 cycles of Minimum and Maximum Operating Temperature</p> <p>Each cycle shall be set per diagram below and is three (3) hours long *</p> <div style="text-align: center;">  </div>
Humidity Test	120 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 0.75 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: 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

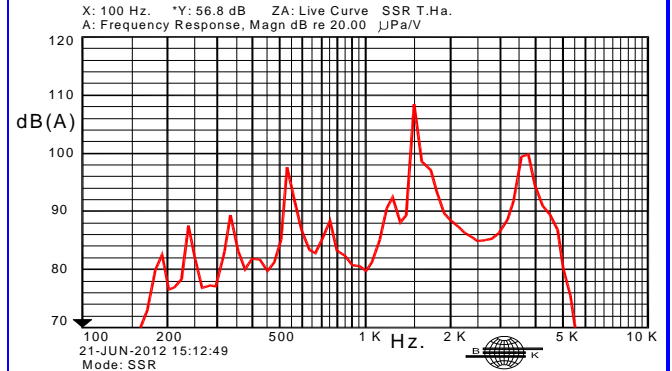


DIMENSIONS

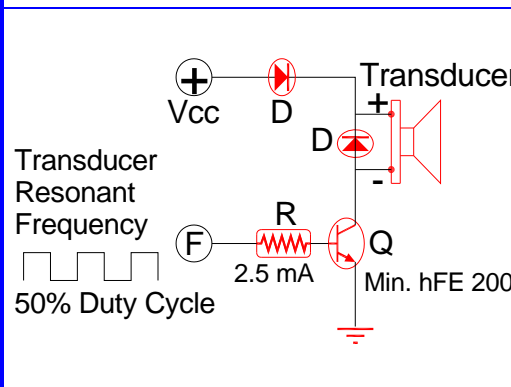
Units in: mm, Tolerance: ± 0.5mm unless specified otherwise.



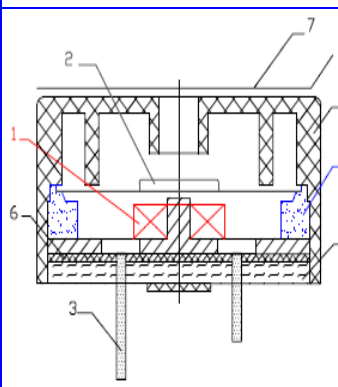
SPL vs. FREQUENCY RESPONSE



RECOMMENDED CIRCUIT DRIVE

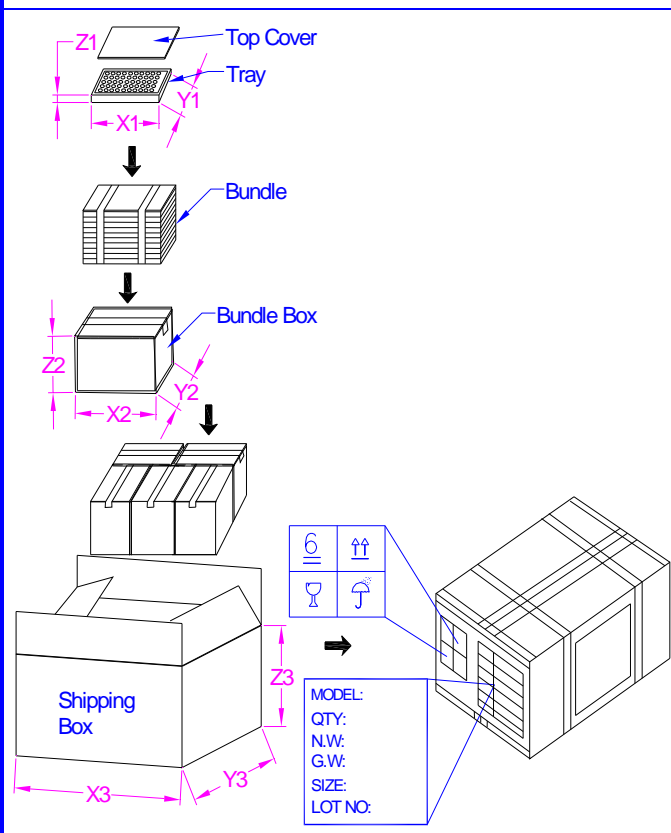


CROSS SECTIONAL DIAGRAM



Item #	Description	Qty	Notes
1	Coil	1	
2	Diaphragm	1	
3	PC Pins	2	Copper, Sn plated.
4	Housing	1	Noryl Black
5	Magnet	1	
6	PCB	1	
7	Removable Sealing Label	1	
8	Epoxy	1	

PACKAGING



MARKING		TRAY	
Bundle		X1	32 cm
Customer PN	Dimensions	Y1	17 cm
Other PN (if required)		Z1	2.7 cm
Quantity	Quantity	50	
Lot and/or Date Code	BUNDLE		
Bundle Number	Dimensions	X2	32.5 cm
Shipping Box		Y2	17.5 cm
Customer Part Number		Z2	27 cm
Other PN (if required)	Quantity	2 X 700 1 X 600	
Quantity	SHIPPING BOX		
Lot and/or Date Code	Dimensions	X3	51.5 cm
PO Number		Y3	33 cm
Net Weight		Z3	33.5 cm
Gross Weight	Number of Bundles	3	
Box Number	Quantity	2,000	
of Number of Boxes	Approximate Weight	21.5 Kg	
Made in China			

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