

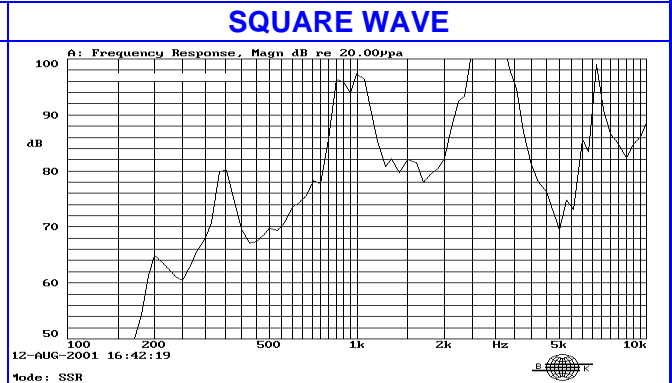
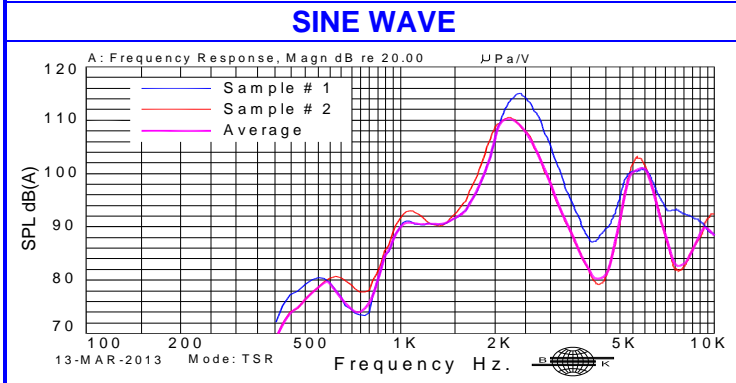


## PRODUCT INFORMATION

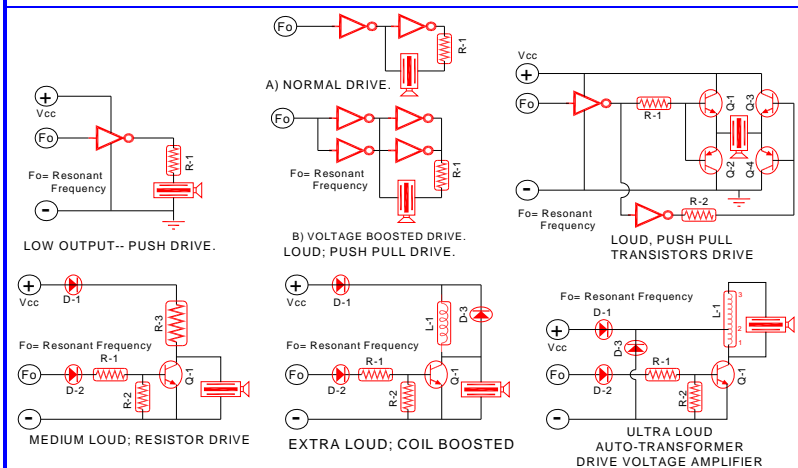
<b>Part Number</b>	<b>CEPT-440R140-130-100W110R</b>						<b>Revision</b>	<b>1-2013</b>	
	<b>Low Frequency Piezoelectric Transducer</b>								
<b>DESCRIPTION</b>				<b>FEATURES</b>					
<p>Challenge Electronics Piezoelectric Transducer, 44 mm diameter, R Style case (Round with Flange Panel Mount and Top Sound Port), 14 mm high, 1 to 30 Vpp, 1,000 Hz. Resonant Frequency, Minimum SPL 85 dB(A) at 10 cm nominal Voltage and Resonant Frequency, Wire Leads 110 mm Long termination, RoHS Compliant</p>				<p>◆ <b>RoHS Compliance</b> ◆ <b>ISO 9001 Certified</b></p>					
<b>SPECIFICATIONS</b>									
Operating Voltage	<b>1 to 30 Vp-p</b>		Nominal Operating Voltage	<b>12 Vp-p</b>		Resonant Frequency (Fo)	<b>1,000 ± 250 Hz.</b>		
Sound Pressure Level	<b>Minimum 85 dB(A)</b> , at: 10 cm, Nominal Rated Voltage, Resonant Frequency, Square Wave, 50% Duty Cycle								
Maximum Current	<b>3 mA</b> , at: Nominal Rated Voltage, Resonant Frequency, Square Wave, 50% Duty Cycle								
Capacitance	<b>77,000 ± 30% pFD</b> , at 120 Hz.		Operating Temperature	<b>-20°C to +60°C</b>		Storage Temperature	<b>-30°C to +75°C</b>		
Materials	Alarm Case	<b>Plastic, "R" Case, ABS or equal, Black</b>					Sound Port Direction	<b>Top</b>	
	Diaphragm	<b>Brass</b>			Encapsulation	<b>Plastic cover, Black</b>			
	Termination	<b>Wire Leads, 28 AWG, UL1095, 110 mm Long, Stripped 3 mm from the end</b>							
Physical Dimensions	Length or Diameter (L/D)	<b>61.0 mm</b>	Width (W)	<b>44.0 mm Ø</b>	Height (H)	<b>14.0 mm</b>	Mounting Spacing	<b>52.0 mm</b>	
Approximate Weight	<b>10 grams</b>		Removable Washing Label	<b>No</b>		Compliance	<b>RoHS</b>		
Options									
<b>RELIABILITY</b>									
Thermal Operating Temperature Test		<b>96 hours</b> continuous operation <b>at Rated Power</b> , <b>at Maximum Rated Operating Temperature</b> * <b>96 hours</b> continuous operation <b>at Rated Power</b> , <b>at Minimum Rated Operating Temperature</b> *							
Thermal Storage Temperature Test		<b>96 hours</b> storage at <b>Maximum Rated Storage Temperatures</b> * <b>96 hours</b> storage at <b>Minimum Rated Storage Temperatures</b> *							
Thermal Shock Test		<b>5 cycles of Minimum and Maximum Operating Temperature</b> Each cycle shall be set per diagram below and is 3 hours long *							
Humidity Test		<b>120 Hours</b> at +60°C ± 2°C. 90-95 % RH *							
Salt Spray		Withstand exposure to salt spray per ASTM B117 for a period of <b>300 hours</b> *							
Environmental Exposure		Dust, water, salt, dust-control agents, moisture-control agents, detergents, degreasers, diesel fuel, hydraulic fluid 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 10 mm 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		<b>After 3 hours cooling time, Parts should conform within ± 3 dB(A) to original performance</b>							
Life Test	Intermittent	<b>1,000 hours</b> of a 1 minute on 4 minutes off cycle at room temperature and <b>Nominal Rated Voltage</b>							
	Continuous	<b>250 hours</b> continuous operation at room temperature and <b>Nominal Rated Voltage</b>							
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							



## FREQUENCY RESPONSE CURVE

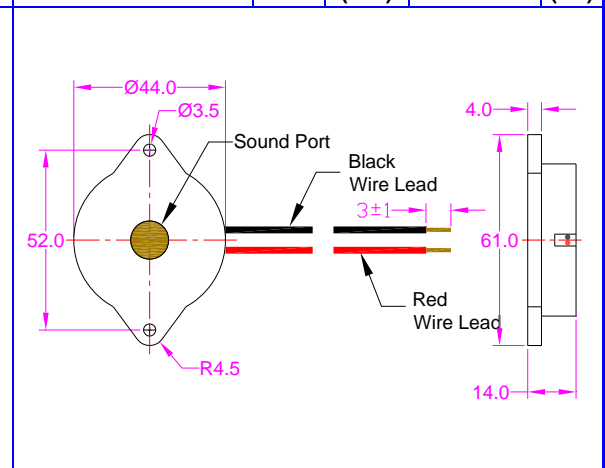


## DRIVING CIRCUIT APPLICATIONS

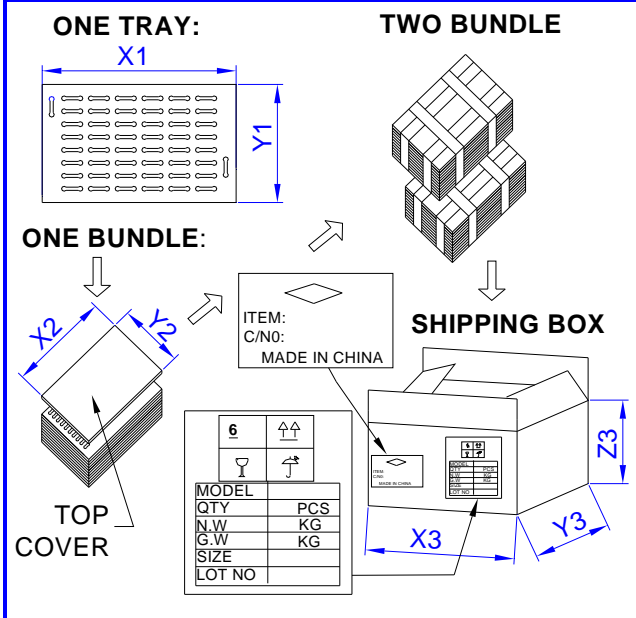


## DIMENSIONS

Units	Inches (mm)	Tolerance
		0.030 (0.7)



## PACKAGING



MARKING	TRAY	
<b>Bundle</b>	X1	30 cm
Part Number	Y1	30 cm
Quantity	Z1	cm
Lot and/or Date Code	Quantity 49	
Bundle Number	<b>BUNDLE</b>	
<b>Shipping Box</b>	X2	cm
Customer Part Number	Y2	cm
Other PN (if required)	Z2	cm
Quantity	Quantity	
Lot and/or Date Code	<b>SHIPPING BOX</b>	
PO Number	X3	31.5 cm
Net Weight	Y3	31 cm
Gross Weight	Z3	18 cm
Box Number	Number of Bundles 7	
of Number of Boxes	Quantity 343	
<b>Made in China</b>	Approximate Weight	

Revision	Description	By	Date
1-2013	Added Sine Wave Frequency Response	ESZ	3/18/2013