Challenge Electronics
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PRODUCT INFORMATION

PART #	CEPT225H090-130-20P225R	Revision: 0-2013

RoHS COMPLIANCE

Piezoelectric Sound Transducer

DESCRIPTION

Challenge Electronics Piezoelectric Transducer, 22.5 mm diameter, H type case(Round Case with Side Pins and TOP Sound Port), **9.0** mm High, **2,048** Hz Resonant Frequency, **1** to **30** Vp-p operating Voltage, SPL **85** dB(A) at 10 cm at 10 Vp-p, PC Pins with **22.5** mm spacing Termination, **R**oHS compliant

FEATURES

- **High Temperature**
- **Flame Retardant Plastic**
- **RoHS**
- **ISO 9001**

SPECIFICATIONS

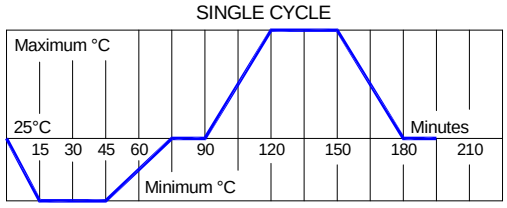
Operating Voltage	1 - 30 Vp-p	Rated Voltage	10.0 Vp-p	Resonant Frequency	2,048 ± 500 Hz.
Sound Pressure Level	85 dB(A) at 10 cm, at: Nominal Voltage, Resonant Frequency. Square Wave 50% Duty cycle, 25 ºC				
Operating Current	3.5 mA, at: Nominal Voltage, Resonant Frequency, Square Wave 50% Duty cycle, 25 ºC				
Capacitance	24,000±30% pFD at 100 Hz. 1 Vrms	Operating Temperature	-20ºC to + 80ºC	Storage Temperature	-40ºC to +80ºC

Material	Case	Noryl		Sound Port Direction	Top
	Diaphragm	Nickel Alloy	Encapsulation		
	Termination	Two (2) Pins: Phosphor Bronze ,Sn plated			

Physical Dimensions	Length or Diameter (L /D)	22.5 mm ø	Width (W)		Height (H)	9.0 mm	Pins Spacing	22.5 mm
Approximate Weight	2.0 grams	Removable Washing Label	No	Compliance	RoHS			
Options								

RELIABILITY

Thermal Operating Temperature Test	**96 hours** continuous operation at **Rated Power**, at **Maximum Rated Operating Temperature** *
	96 hours continuous operation at **Rated Power**, 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	**5 cycles** of **Minimum and Maximum Operating Temperature** Each cycle shell be set per diagram below and is 3 hours long *
Humidity Test	**96 Hours** at +60°C ± 2°C. 90-95 % RH *
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 9.8N load pull test, applied to each terminal in axial direction for **10 seconds**
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	**After 3 hours cooling time, Parts should conform within ± 3 dB(A) to original performance**
Life Test	**1,000 hours** continuous operation **at room temperature and Nominal 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



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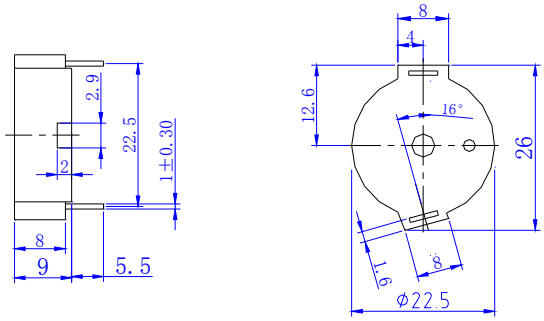
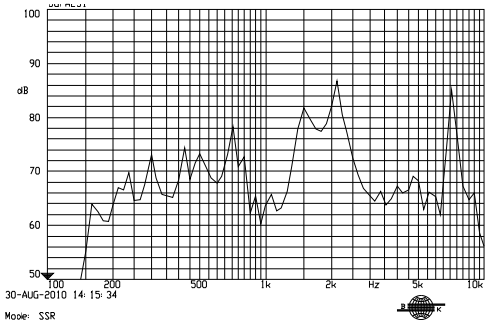
DIMENSIONS

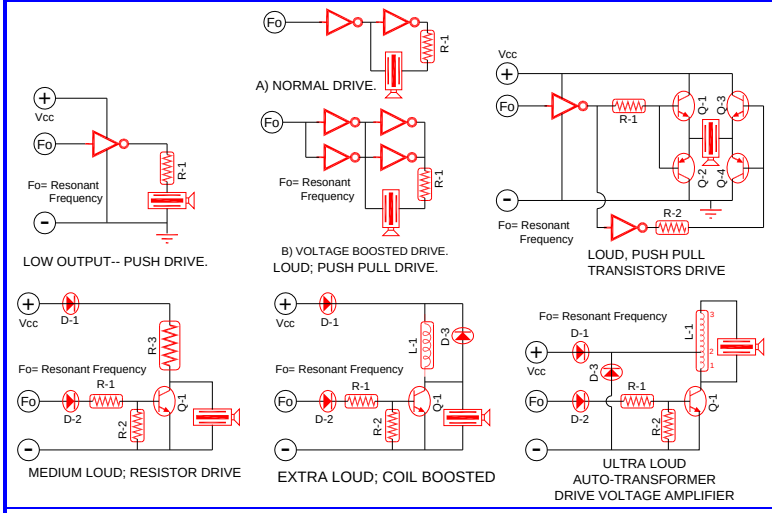
Units in: mm, Tolerance: ± 0.5mm unless specified otherwise



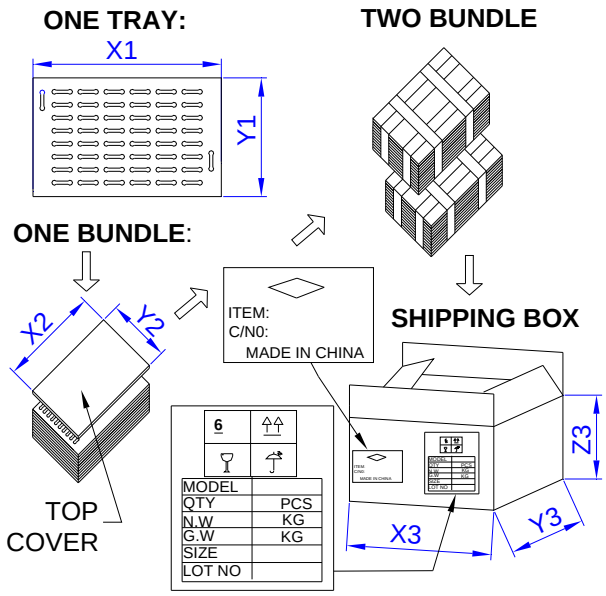
SPL vs. FREQUENCY RESPONSE



DRIVING CIRCUIT APPLICATIONS



PACKAGING



MARKING	TRAY		
Bundle	Dimensions	**X1**	**cm**
Part Number		**Y1**	**cm**
Quantity		**Z1**	**cm**
Lot and/or Date Code	Quantity	**50**	
Bundle Number	**BUNDLE**		
Shipping Box	Dimensions	**X2**	**cm**
Customer Part Number		**Y2**	**cm**
Other PN (if required)		**Z2**	**cm**
Quantity	Quantity		
Lot and/or Date Code	**SHIPPING BOX**		
PO Number	Dimensions	**X3**	**50.5 cm**
Net Weight		**Y3**	**40 cm**
Gross Weighjt		**Z3**	**36 cm**
Box Number	Number of Bundles		
of Number of Boxes	Quantity	**2,000**	
Made in China	Approximate Weight		

Revision	Description	By	Date