# PRODUCT INFORMATION

## PART #
CPT130A025-10-130-48W35R

## Description
Challenge Electronics Piezoelectric Transducer, 13.0 mm Diameter, A type case (TOP Sound Port), 2.5 mm High, 10 Vpp Rated Voltage, 1 to 30 Vpp operation, minimum SPL of 80 dB(A) at Rated Voltage, 10 cm, 4,800 Hz. resonant Frequency, Wire Leads 35 mm Long Termination, RoHS Lead Free Compliance

## Features
- RoHS Compliant
- ISO 9001

## Specifications

<table>
<thead>
<tr>
<th>Operating Voltage</th>
<th>Rated Voltage</th>
<th>Resonant Frequency (Fo)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ~ 30 Vpp</td>
<td>10 Vpp</td>
<td>4,800 ± 10% Hz.</td>
</tr>
</tbody>
</table>

**Sound Pressure Level**
Minimum 80 dB(A), at: Nominal rated Voltage, 10 cm, Resonant Frequency

**Operating Current**
Typical 5 mA, at: Nominal rated Voltage, Resonant Frequency

**Capacitance**
15,000 ± 30% pFD

**Material**
Case: A Style, Plastic, ABS, Black
Diaphragm: Brass
Sealing: Plastic Cover
Termination: Wire leads, 30 AWG, UL 1571, 1.378" (35 mm) Long, Striped 0.0787" (2.0 mm)
Color Coded: Red = Positive, Black Stripe = Negative

**Physical Dimensions**
Length or Diameter (L / D): 13.0 mm Ø
Width (W): 2.5 mm
Height (H): Pins Spacing

**Approximate Weight**
1 grams
Removable Washing Label
No

**Options**
Compliance: RoHS

## 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

**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 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 ±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°C for ±0.5 seconds or +260°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

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Challenge Electronics reserves the right to make changes in any specification, data or material contained herein.
 DIMENSIONS
Units in: mm, Tolerance: ± 0.5mm unless specified otherwise.

SPL vs. FREQUENCY RESPONSE

PACKAGING

<table>
<thead>
<tr>
<th>MARKING</th>
<th>Sealed Bag</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bundle</strong></td>
<td>X1 17.0 cm</td>
</tr>
<tr>
<td>Customer PN</td>
<td>Y1 12.0 cm</td>
</tr>
<tr>
<td>Other PN (if required)</td>
<td>Z1 cm</td>
</tr>
<tr>
<td>Quantity</td>
<td>200</td>
</tr>
<tr>
<td>Lot and/or Date Code</td>
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</tr>
<tr>
<td>Bundle Number</td>
<td>X2 21.0 cm</td>
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<tr>
<td><strong>Shipping Box</strong></td>
<td>Y2 19.5 cm</td>
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<tr>
<td>Customer Part Number</td>
<td>Z2 10.5 cm</td>
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<tr>
<td>Other PN (if required)</td>
<td>Quantity</td>
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<tr>
<td>Quantity</td>
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<tr>
<td>Lot and/or Date Code</td>
<td></td>
</tr>
<tr>
<td>PO Number</td>
<td>X3 31.5 cm</td>
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<tr>
<td><strong>Net Weight</strong></td>
<td>Y3 31.0 cm</td>
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<tr>
<td>Gross Weight</td>
<td>Z3 30.0 cm</td>
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<tr>
<td>Number of Bundles</td>
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</tr>
<tr>
<td><strong>Box Number</strong></td>
<td>Quantity</td>
</tr>
<tr>
<td>Approximate Weight</td>
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</tr>
</tbody>
</table>

Revision  Description                        By       Date
2-2015  Added Shipping Quantities and Dimensions W. Sargent 2015-10-29

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