




PRODUCT INFORMATION

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| PART # | CEPB418I160-324C28WR | Revision: 1-2011 |
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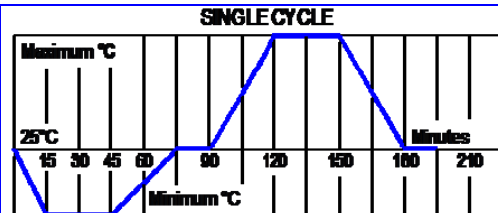
Piezoelectric Buzzer

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| DESCRIPTION | FEATURES |  |
| Challenge Electronics Piezoelectric Buzzer, 41.8 mm diameter, I type case (Flange Mounting and TOP Sound Port), 16.0 mm Height, 3 to 24 Vdc operation, Continuous Tone, 2,800 Hz Resonant Frequency, with a minimum output of 100 dB(A) at Rated Voltage and 10 cm, Wire Leads 50 mm Long Termination, RoHS Lead Free compliant | <ul style="list-style-type: none"> • RoHS, Lead Free Compliant • ISO 9001 | |

SPECIFICATIONS

| | | | | | |
|------------------------------|--|--------------------------------------|-----------------------------------|------------------------------|--------------------------------|
| Sound Type | Continuous Tone | Operating Voltage | 3.0 - 24 Vdc | Rated Voltage | 12.0 Vpp |
| Resonant Frequency | 2,800 ± 300 Hz. | Pulse Rate | 1 ± 50% per Second | Maximum Current | 18 mA, at Rated Voltage |
| Sound Pressure Level | 100 dB(A), at: rated Voltage, 10 cm | | | | |
| Operating Temperature | -20°C to + 60°C | Storage Temperature | -30°C to + 70°C | | |
| Termination | Wire Leads, 24 AWG, UL 1007, 5.51" (50 mm) Long, Stripped 0.196" (5.0 mm) Color Coded: RED = Positive; BLACK = Negative | | | | |
| Material | Case | I type, Plastic, ABS or equal | Diaphragm | Brass | |
| | Encapsulation | Back Cover | | | |
| Sound Port Direction | Top | Mounting | Flange Mount with 2 Screws | Mounting Hole Spacing | 50.0 mm |
| Physical Dimensions | Length or Diameter (L /D) | 41.8 mm Ø | Height (H) | 16.0 mm | |
| Approximate Weight | 15 grams | Removable Washing Label | No | Compliance | RoHS, Lead Free |
| Options | | | | | |

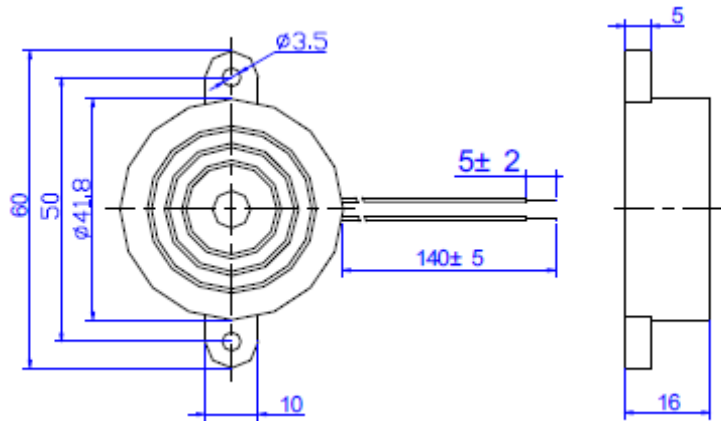
RELIABILITY

| | | |
|---|--|--|
| 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 | 240 hours storage at Maximum Rated Storage Temperatures * | |
| | 240 hours storage at Minimum Rated Storage Temperatures * | |
| Thermal Shock Test | <p>5 cycles of Minimum and Maximum Operating Temperature, Each cycle shall be set per diagram below and is three (3) hours long *</p>  <p>SINGLE CYCLE</p> <p>The diagram shows a temperature profile starting at 25°C, dropping to a minimum, rising to a maximum, and then returning to 25°C. The x-axis is labeled 'Minutes' with markers at 15, 30, 45, 60, 90, 120, 150, 180, and 210. The y-axis is labeled 'Maximum °C' and 'Minimum °C'.</p> | |
| 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 (6 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 | |

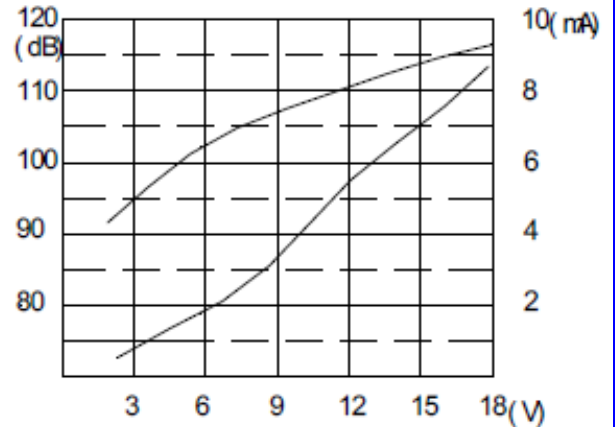


DIMENSIONS

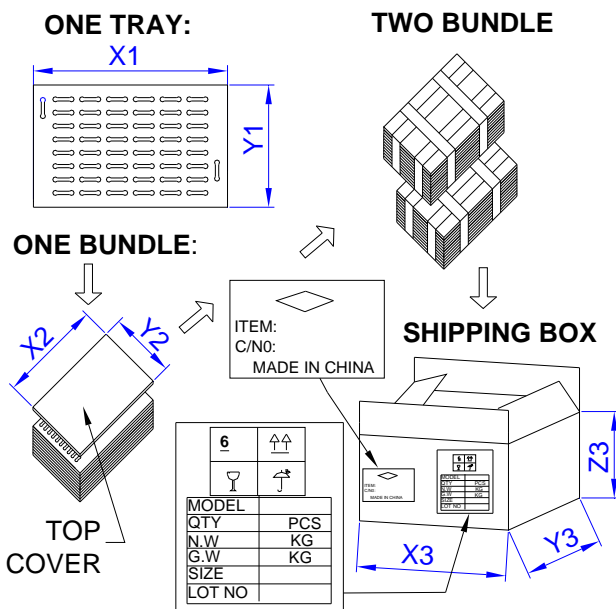
Units in: mm, Tolerance: ± 0.5mm unless specified otherwise.



SPL vs. FREQUENCY RESPONSE



PACKAGING



| MARKING | | TRAY | |
|------------------------|--------------------|------|---------|
| Bundle | | X1 | 20.5 cm |
| Customer PN | Dimensions | Y1 | 15 cm |
| Other PN if required | | Z1 | 8 cm |
| Quantity | Quantity | 90 | |
| Lot and/or Date Code | BUNDLE | | |
| Bundle Number | | X2 | |
| Shipping Box | Dimensions | Y2 | |
| Customer Part Number | | Z2 | |
| Other PN (if required) | Quantity | | |
| Quantity | SHIPPING BOX | | |
| Lot and/or Date Code | | X3 | 50.5 cm |
| PO Number | Dimensions | Y3 | 32 cm |
| Net Weight | | Z3 | 30.5 cm |
| Gross Weighjt | Number of Bundles | 10 | |
| Box Number | Quantity | 900 | |
| of Number of Boxes | Approximate Weight | | |
| Made in China | | | |