**MODEL:** CUSP-T80-15-2400-TH | **DESCRIPTION:** ULTRASONIC SENSOR

### FEATURES
- plastic can
- open type
- transmitter
- SPL 105 dB
- detectable range 15 meters

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>parameter</th>
<th>conditions/description</th>
<th>min</th>
<th>typ</th>
<th>max</th>
<th>units</th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td>transmitter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>operating voltage</td>
<td>at 40 kHz</td>
<td>80</td>
<td>Vp-p</td>
<td></td>
<td></td>
</tr>
<tr>
<td>frequency</td>
<td>at 40 kHz</td>
<td>40</td>
<td>kHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sound pressure level</td>
<td>at 10 V, 30 cm, sine wave</td>
<td>105</td>
<td>dB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>directivity</td>
<td></td>
<td>80</td>
<td>degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>capacitance</td>
<td>at 1 kHz</td>
<td>1,800</td>
<td>2,400</td>
<td>3,000</td>
<td>pF</td>
</tr>
<tr>
<td>detectable range</td>
<td></td>
<td>0.2</td>
<td>15</td>
<td>m</td>
<td></td>
</tr>
<tr>
<td>dimensions</td>
<td>Ø9.8 x 7.0</td>
<td></td>
<td></td>
<td></td>
<td>mm</td>
</tr>
<tr>
<td>material</td>
<td>ABS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>terminal</td>
<td>pins (iron with tin plating)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>weight</td>
<td></td>
<td>0.58</td>
<td>g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>operating temperature</td>
<td>-20 °C</td>
<td>80</td>
<td>°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RoHS</td>
<td>yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SOLDERABILITY

<table>
<thead>
<tr>
<th>parameter</th>
<th>conditions/description</th>
<th>min</th>
<th>typ</th>
<th>max</th>
<th>units</th>
</tr>
</thead>
<tbody>
<tr>
<td>hand soldering</td>
<td>for 3 ± 0.5 seconds</td>
<td>370</td>
<td>380</td>
<td>390</td>
<td>°C</td>
</tr>
</tbody>
</table>
MECHANICAL DRAWING

units: mm

Recommended PCB Layout
Top View

2-φ2 Pads

2-φ0.9 Hole
BEAM PATTERNS

SPL vs. Frequency

Directivity
PACKAGING

units: mm

Tray Size: 230 x 135 x 35 mm
Tray QTY: 100 pcs per tray
Carton Size: 490 x 350 x 270 mm
Carton QTY: 4,000 pcs per carton

100PCS/BOX
BOX SIZE: 23*13.5*3.5CM

10 BOXES/STACK, TOTAL 1000PCS:
STACK SIZE: 23*13.5*28CM

4000PCS/CARTON
CARTON SIZE: 49*35*27CM
## REVISION HISTORY

<table>
<thead>
<tr>
<th>rev.</th>
<th>description</th>
<th>date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>initial release</td>
<td>12/02/2020</td>
</tr>
<tr>
<td>1.01</td>
<td>logo, datasheet style update</td>
<td>08/05/2022</td>
</tr>
</tbody>
</table>

The revision history provided is for informational purposes only and is believed to be accurate.