



# PRODUCT INFORMATION

<b>PART #</b>	<b>CES350V080CA08PCN500TR</b>	<b>Revision: 0-2010</b>
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## OVAL SPEAKER

**DESCRIPTION:** Oval Speaker, 35 X 20 X 8.0 H, 8 Ohm, Plastic Case, Cloth Cone, 2 W max. input power, Fo = 500 Hz. Solder Point Connections, RoHS Lead Free Compliant

### SPECIFICATIONS

<b>Shape</b>	<b>Round</b>					
<b>DC Impedance</b>	<b>8 Ω ±15%, at 800 Hz., at 1.0 V</b>		<b>Rated Power:</b>	<b>1.0 W</b>	<b>Maximum Power:</b>	<b>2.0 W</b>
<b>Effective Frequency Band</b>	<b>500 Hz. to 5,000 Hz.</b>		<b>Resonant Frequency (Fo):</b>	<b>500 Hz. ±20%, at 1.0 V</b>		
<b>Sound Pressure Level</b>	<b>84 ± 3.0 dB (A), at 0.25 W, 0.5 m, Average 800, 1,000,1,200, 1,500 (Hz ), at 25°C., Baffle board (IEC)</b>					
<b>Operating Temperature</b>	<b>-30°C to + 70°C</b>		<b>Storage Temperature</b>	<b>-40°C to +80°C</b>		
<b>Physical Dimensions</b>	<b>Length or Diameter (L /D)</b>	<b>35.0 mm</b>	<b>Width (W)</b>	<b>20.0 mm</b>	<b>Height (H)</b>	<b>8.0 mm</b>
<b>Distortion</b>	<b>Less than 5% at 1,000 Hz. at 1.0 W.</b>					
<b>Buzz &amp; Rattle</b>	<b>Not be audible at 2.83 V sine wave between 20 Hz and 2,200 Hz.</b>					
<b>Polarity</b>	<b>When a positive DC Current is applied to the voice coil terminal marked +or red, the diaphragm shall move forward.</b>					
<b>Magnet</b>	<b>Ferrite, NdFeB, 11 mm Ø X 2.0 mm t</b>				<b>Flux Density:</b>	<b>1.0 T</b>
<b>Termination</b>	<b>PCB with solder joints connections</b>					
<b>Housing Material</b>	<b>Plastic, ABS</b>		<b>Cone Material</b>	<b>Cloth</b>		
<b>Options</b>						
<b>Approximate Weight</b>	<b>0.8 grams</b>	<b>Shielding</b>	<b>None</b>	<b>Compliance</b>	<b>Lead Free, RoHS</b>	

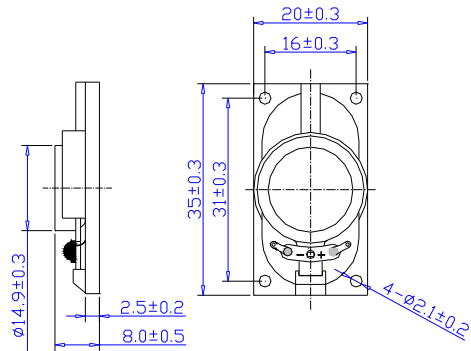
### RELIABILITY

<b>Max. Power Test</b>	With program White-Noise source <b>Maximum Power</b> , 1 minute on, 2 minutes off, 10 cycles, per (EIA) *
<b>Thermal Operating Temperature Test</b>	50 hours continuous operation <b>at Rated Power</b> , at Maximum Rated Operating Temperature *
	50 hours continuous operation <b>at Rated Power</b> , at Minimum Rated Operating Temperature *
<b>Thermal Storage Temperature Test</b>	After parts are subjected to 96 hours storage at Maximum Rated Storage Temperatures *
	After parts are subjected to 96 hours storage at Minimum Rated Storage Temperatures *
<b>Thermal Shock Test</b>	After parts are subjected to five (5) cycles of Minimum and Maximum Operating Temperature. Each cycle shall be set per diagram below and is three (3) hours long *
<b>Humidity Test</b>	After parts are subjected to 96 Hours at +40°C±2°C. 90-95% RH *
<b>Operation Life Test</b>	Must perform normal with program White-Noise source <b>at Rated Power</b> for 96 Hours per (EIA) *
<b>Insulation Test</b>	A minimum of 1 MΩ, measured with 100 Vdc Insulation Resistance Meter, between the Electrical Terminals and the Transducer Case
<b>Vibration Test</b>	After parts are subjected to 15minutes of at 1.5 mm with 10 to 55 Hz. vibration frequency to each of 3 perpendicular directions *
<b>Termination Strength</b>	Maximum of 9.8 N (1.0 Kg) load pull test, applied to each terminal in axial direction for 10 seconds
<b>Drop Test</b>	After parts are subjected to dropped naturally from 1 meter height onto the surface of 40 mm wooden board, 3 axes (X,Y,Z) directions, 3 times (6 times total) *
<b>Reliability Test Performance *</b>	<b>Parts should conform to original performance within ±5 dB tested with Rated Power, after 3 hours of recovery period.</b>
<b>Warranty</b>	For a period of one (1) year from date of shipping under normal operations conditions

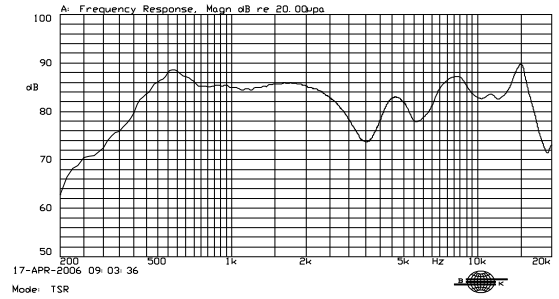


## DIMENSIONS

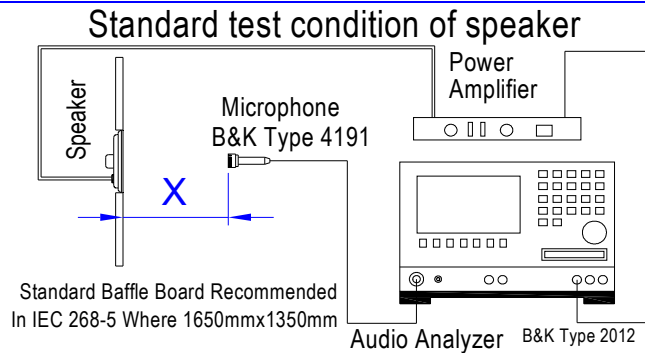
Units in: mm, Tolerance:  $\pm 0.3$ mm unless specified otherwise.



## SPL vs. FREQUENCY RESPONSE



## TEST PROCESS



**Test Condition**

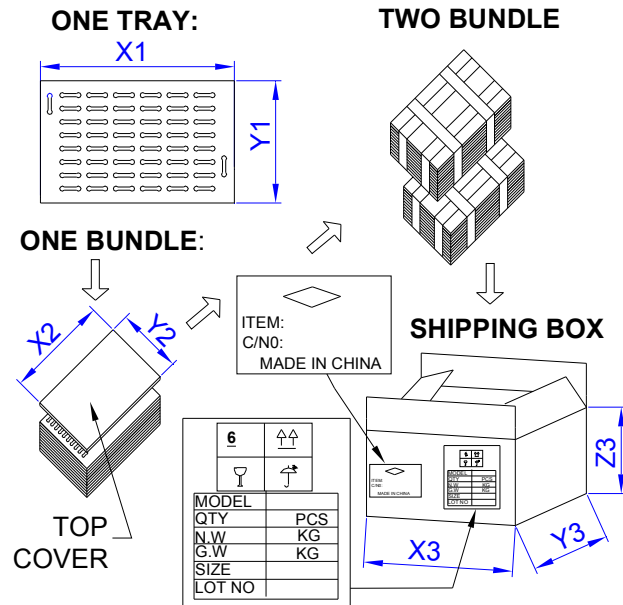
**STANDARD**  
Temperature: 15 ~ 35°C  
Relative humidity: 45% ~ 85%  
Atmospheric pressure: 860 mbar to 1060mbar

**JUDGEMENT**  
Temperature: 20±3°C  
Relative humidity: 60% ~ 70%  
Atmospheric pressure: 860mbar to 1060mbar

**Standard Test Fixture**  
Input Power: 0.1W (0.89V)  
Zero Level: -dB  
Mode: TSR  
potentiometer Range: 50dB  
Sweep Time: 0.5sec

**Microphone Distance:**  
**X = 50 cm**

## PACKAGING



MARKING		TRAY	
<b>Bundle</b>	Dimensions	X1	34.8 cm
Customer PN		Y1	28.8 cm
Other PN if required	Quantity	50	
Quantity	<b>BUNDLE</b>		
Lot and/or Date Code	Dimensions	X2	29.5 cm
Bundle Number		Y2	35 cm
<b>Shipping Box</b>	Quantity	500	
Customer Part Number	<b>SHIPPING BOX</b>		
Other PN (if required)	Dimensions	X3	60 cm
Quantity		Y3	37 cm
Lot and/or Date Code		Z3	20.5 cm
PO Number	Number of Bundles	2	
Net Weight	Quantity	1,000	
Gross Weight	Approximate Weight		
Box Number			
of Number of Boxes			
<b>Made in China</b>			