



PRODUCT INFORMATION

PART #	CES350V525AF08PMN750SPR	Revision:	1-2013
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OVAL SPEAKER



DESCRIPTION: Challenge Electronics Speaker, 35.0 mm Long, OVAL shape, 20.6 mm Wide, 5.25 mm High, AF = 0.5 W maximum power, 8 Ohm, Plastic Frame, Mylar Cone, NdFeB magnet, 750 Hz. (Fo) Resonant Frequency, Shielded, SPRING terminals, RoHS Lead Free Compliant

SPECIFICATIONS

Shape	Oval	Impedance	8 Ω ± 15%, at 1000 Hz, 1.0 V			DC Resistance									
Rated Power	Sine Wave	0.25 W	Square Wave	W	Maximum Power	Sine Wave	0.5 W	Square Wave							
Effective Frequency Band	750 Hz. to 20,000 Hz.			Resonant Frequency (Fo)		750 Hz. ±20%, at 1.0 V									
Sound Pressure Level	91 ± 3.0 dB (A), at: 0.1 W, 0.1 m, Average 800, 1,000, 1,200, 1,500 (Hz.), at 25°C, Baffle board (IEC)														
Operating Temperature	-30°C to + 70°C		Storage Temperature	-40°C to +85°C											
Physical Dimensions	Length or Diameter (L/D)	35.0mm	Width (W)	20.6 mm	Height (H)		5.25 mm								
Baffle Opening	Length or Diameter (L/D)	mm Ø	Width (W)	mm	Minimum Opening Recessed		3.0 mm								
Mounting	Length or Diameter (L/D)	mm	Width (W)	mm	Holes size	Ø mm	Holes								
Distortion	Less than 5% at 1,000 Hz. at 1 V, Sine Wave														
Buzz & Rattle	Not be audible at 1.414 V sine wave between 750 Hz and 2,000 Hz.														
Polarity	When a positive DC Current is applied to the voice coil terminal marked +or red, the diaphragm shall move forward.														
Material	Magnet	Ferrite, NdFeB, 10.3 mm Ø, 1.5 mm t				Flux Density	T								
	Frame	Plastic, black PBT			Cone Material	Mylar, PEI									
	Termination	Springs Terminals, Au Plated													
	Optional Gasket														
Speaker Parameters	Qms		Qes		Qts		Vas		Cms		M		M/N		BL
Approximate Weight	7.6 grams		Shielding	Yes	Compliance	Lead Free, RoHS									
Options															

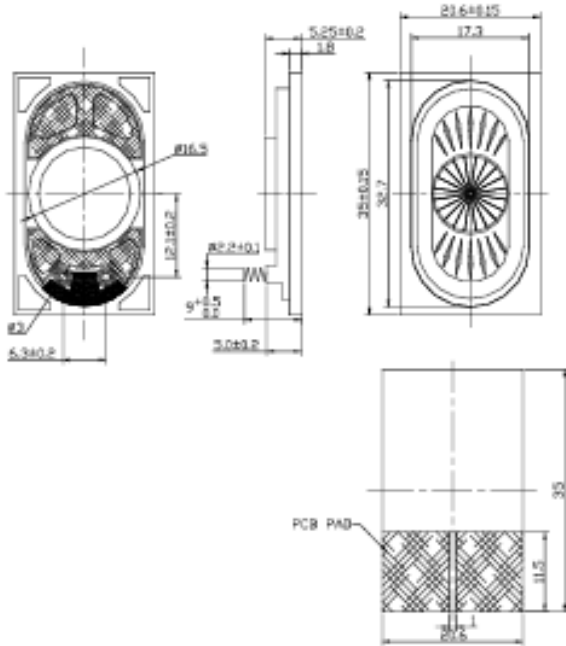
RELIABILITY

Maximum Power Test	With program White-Noise source Maximum Power , 1 minute on, 2 minutes off, 10 cycles, per (EIA) *
Thermal Operating Temperature Test	50 hours continuous operation at Rated Power , at Maximum Rated Operating Temperature *
	50 hours continuous operation at Rated Power , 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 *
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>
Humidity Test	96 Hours at +40°C±2°C. 90-95% RH *
Operation Life Test	Must perform normal with program White-Noise source at Rated Power for 96 Hours per (EIA) *
Insulation Test	A minimum of 1 MΩ, measured with 100 Vdc Insulation Resistance Meter, between the Electrical Terminals and the Transducer Case
Termination Strength	Maximum of 9.8 N (1.0 Kg) load pull test, applied to each terminal in axial direction for 10 seconds
Vibration Test	Parts in Shipping Container, are subjected to 15minutes of at0.75mm with 10 to 55 Hz. vibration frequency to each of 3 perpendicular directions *
Drop Test	Parts in Shipping Container, 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 (9 times total) *
Reliability Test Performance *	Parts should conform to original performance within ±5 dB tested with Rated Power, after 3 hours of recovery period.
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

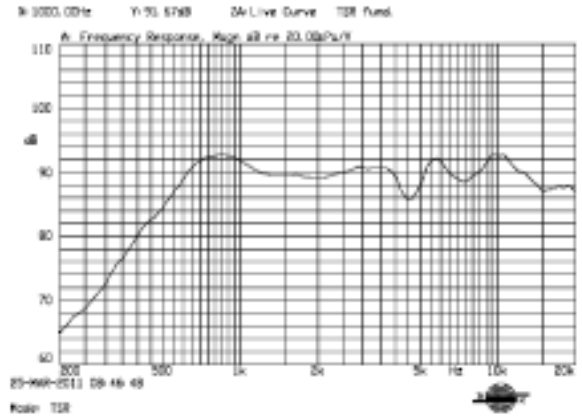


DIMENSIONS

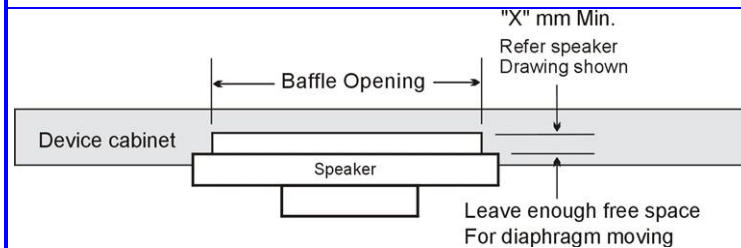
Units in: mm, Tolerance: ± 0.5 mm unless specified otherwise



SPL vs. FREQUENCY RESPONSE

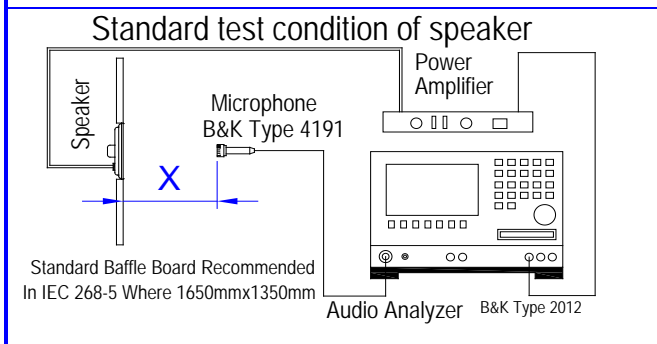


MOUNTING PRECAUTION



In order to keep speaker work normally, there shall leave enough free space for diaphragm moving, minimum distance required is marked in speaker mechanical drawing.

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	
Zero Level:	-dB
Mode:	TSR
potentiometer Range:	50dB
Sweep Time:	0.5sec
Input Power:	
	0.1 W
Microphone Distance:	
	X = 10 cm



PACKAGING

<p>50PCS/1PC</p> <p>Paper Carton/1*20X50=1000 PCS</p> <p>PVC adhesive Tape</p> <p>Wrapping tape</p>	MARKING		TRAY		
	Bundle	Dimensions	X1	cm	
	Customer PN		Y1	cm	
	Other PN if required		Z1	cm	
	Quantity	Quantity	50		
	Lot and/or Date Code	BUNDLE			
	Bundle Number	Dimensions	X2	cm	
	Shipping Box		Y2	cm	
	Customer Part Number		Z2		
	Other PN (if required)	Quantity			
	Quantity	SHIPPING BOX			
	Lot and/or Date Code	Dimensions	X3	cm	
	PO Number		Y3	cm	
	Net Weight		Z3	cm	
	Gross Weighjt	Number of Bundles			
Box Number	Quantity	1,000			
of Number of Boxes	Approximate Weight	kg			
Made in China					

Revision	Description	By	Date
1-2013	Revised Specification format	Ely Zofan	3/7/2013

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