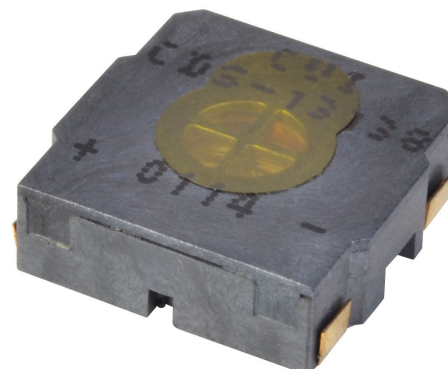


**MODEL:** CDS-13138-SMT | **DESCRIPTION:** SPEAKER

**FEATURES**

- SMT (surface mount) speaker
- reflow solder capable
- wide operating temp range
- compact size

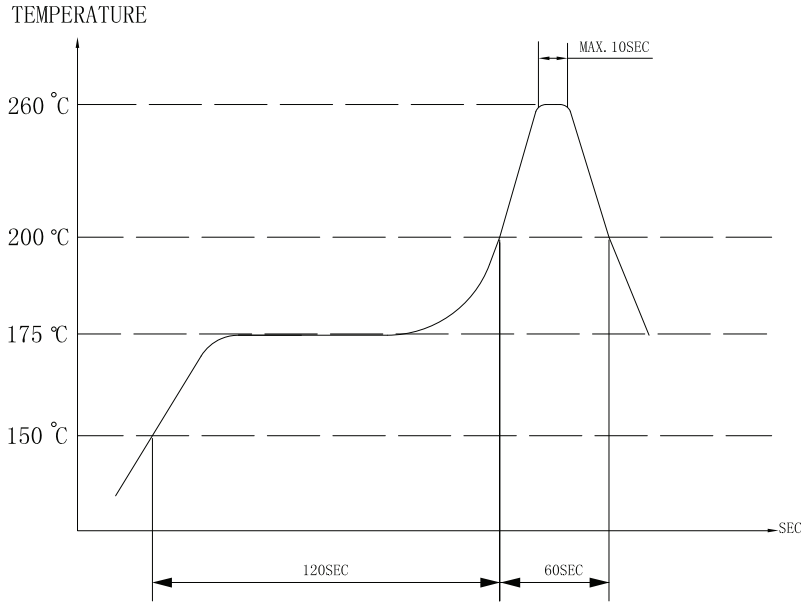

**SPECIFICATIONS**

parameter	conditions/description	min	typ	max	units
input power	maximum power: IEC-60268-5, filter 60s on/120s off, 10 cycles at room temp		0.7	1.0	W
impedance	at 1.5 kHz, 1.0 V	6.8	8	9.2	$\Omega$
resonant frequency (Fo)	at 1.0 V	840	1,050	1,260	Hz
frequency response	output SPL $\pm 10$ dB	Fo		20,000	Hz
sound pressure level	at 0.7 W, 0.1 m ave, at 1.0, 1.6, 2.0, 3.2 kHz	84	87	90	dB
	at 1.0 W, 1.0 m ave, at 1.0, 1.6, 2.0, 3.2 kHz	67	70	73	dB
distortion	at 2.0 kHz, 0.7 W			5	%
buzz, rattle, etc.	must be normal at sine wave between Fo ~ 20 kHz		2.37		V
dimensions	13 x 13 x 4.0				mm
magnet	Sm <sub>2</sub> Co <sub>17</sub> , $\varnothing 6.0$ x 1.0 mm				
material	LCP				
cone material	mylar				
terminal	surface mount, Au plating				
weight			1.1		g
operating temperature		-40		85	$^{\circ}$ C
storage temperature		-40		85	$^{\circ}$ C
washable	yes				
RoHS	2011/65/EU				

Notes: 1. All specifications measured at 5~35 $^{\circ}$ C, humidity at 45~85%, under 86~106kPa pressure, unless otherwise noted.  
2. Add suffix "-TR" to the model for tape and reel packaging.

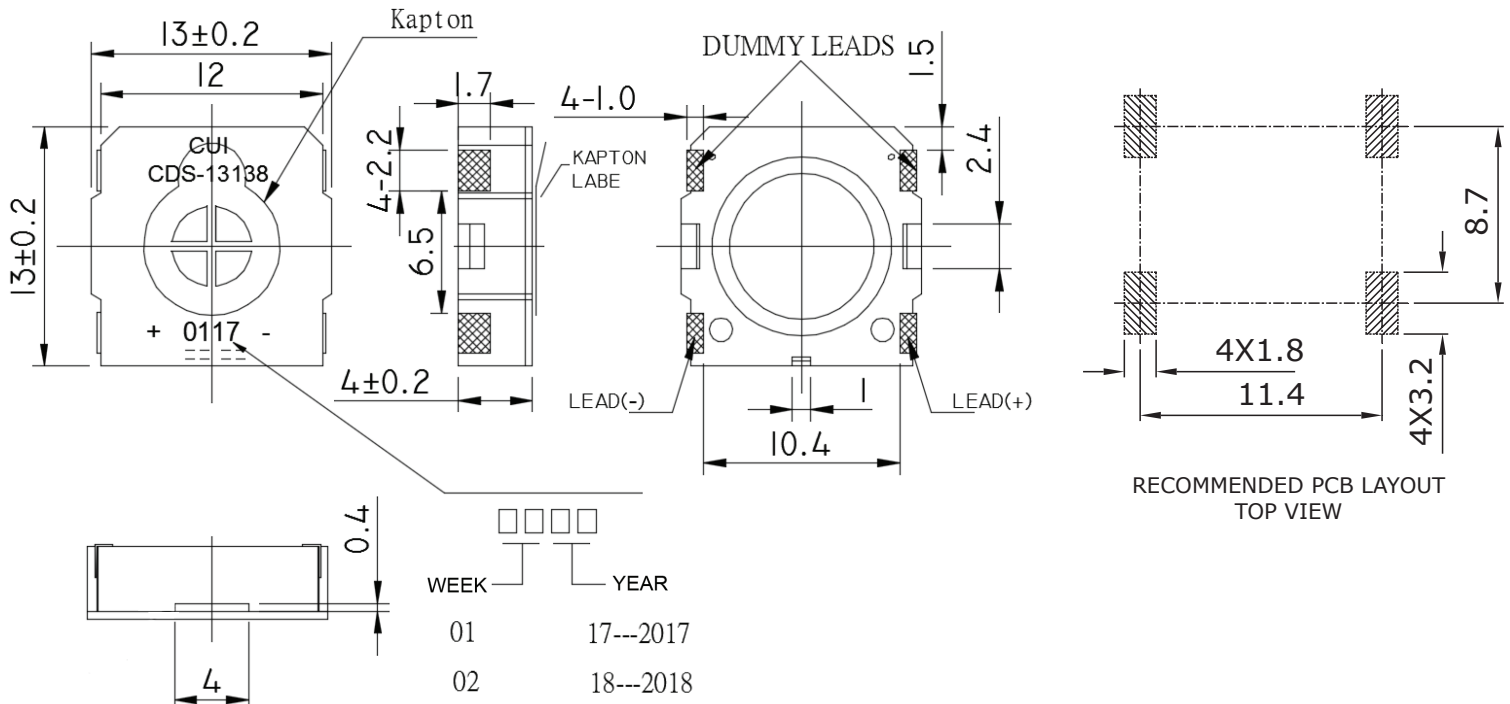
## SOLDERABILITY

parameter	conditions/description	min	typ	max	units
reflow soldering	see reflow profile			260	°C



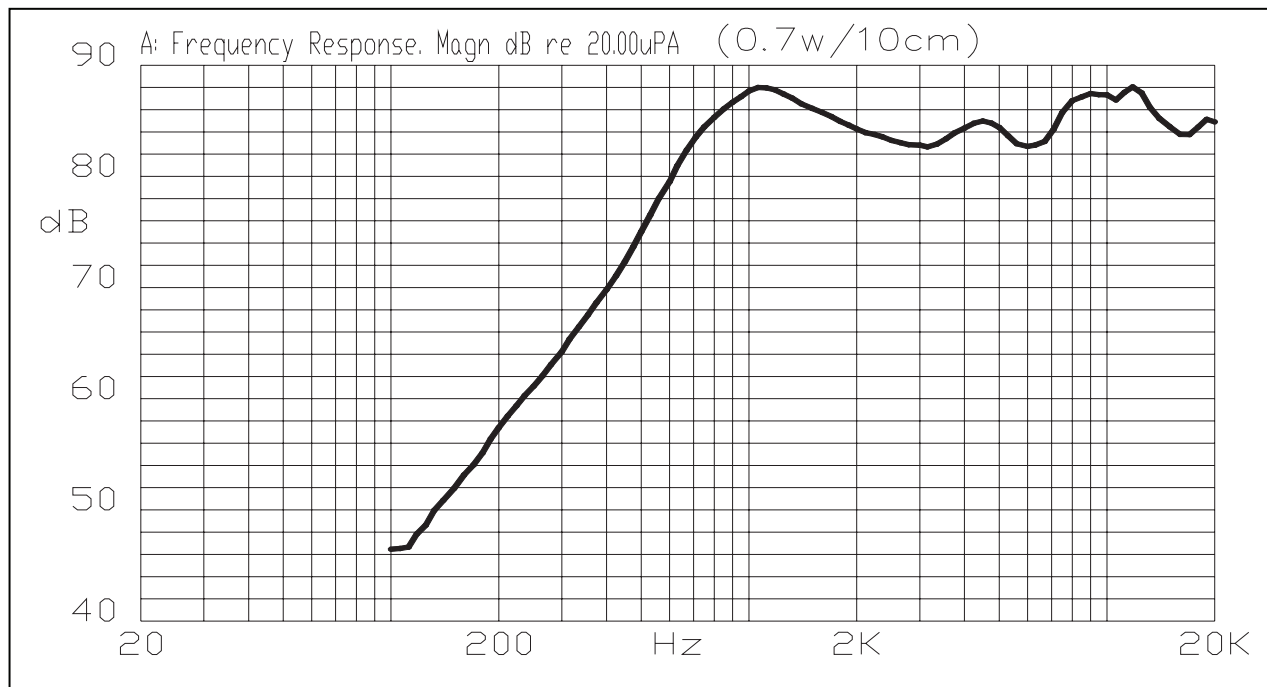
## MECHANICAL DRAWING

units: mm  
tolerance: ±0.25 mm

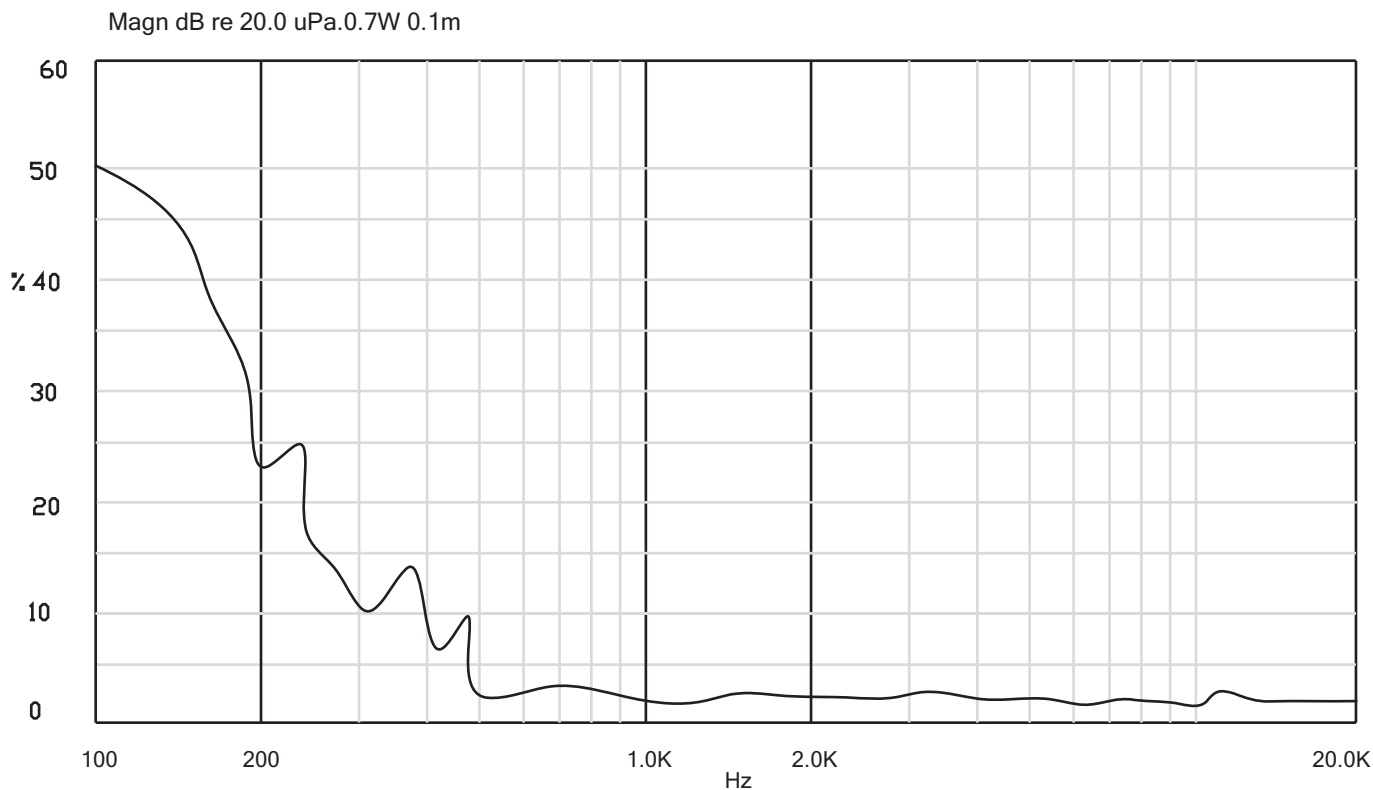


## RESPONSE CURVES

### Frequency Response Curve



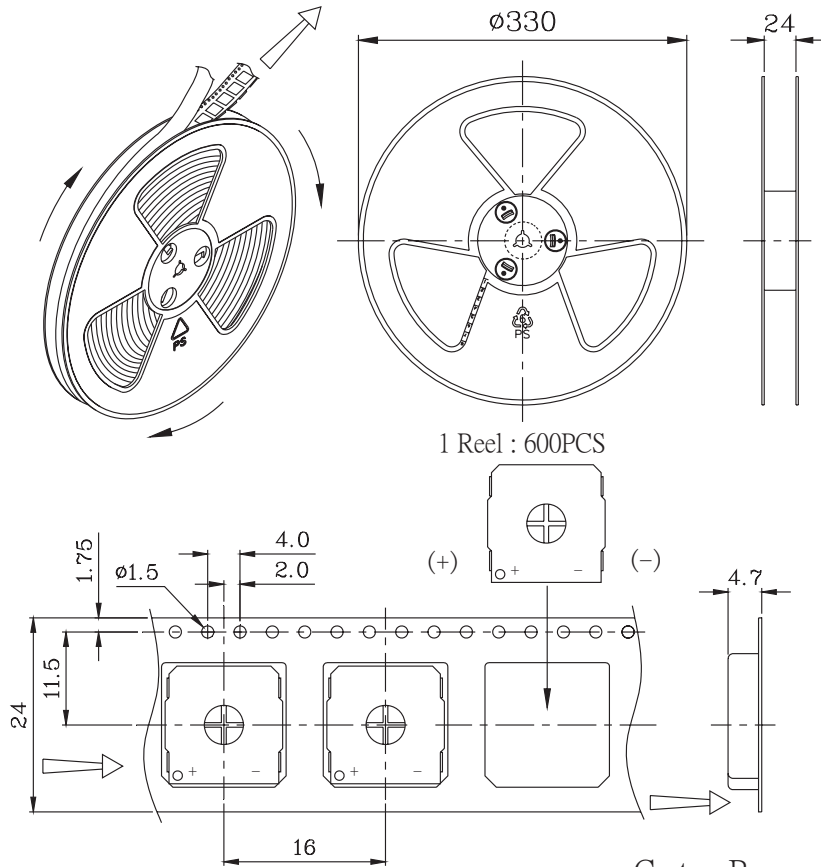
### Total Harmonic Distortion Curve



## PACKAGING

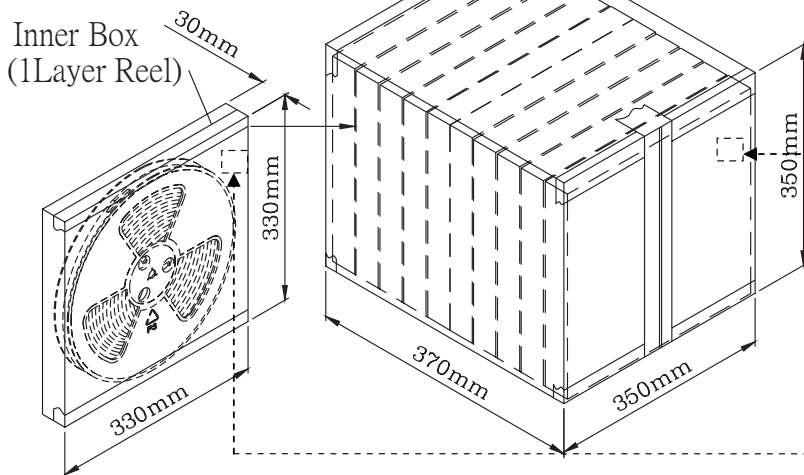
units: mm

Reel Size: Ø330 mm  
 Inner Box Size: 320 x 330 x 30 mm  
 Carton Size: 370 x 350 x 350 mm  
 Reel QTY: 600 pcs per reel  
 Inner Box QTY: 600 pcs per inner box  
 Carton Box QTY: 6,000 pcs per carton box



1 Reel : 600PCS

Carton Box  
(10 Inner Box)



Lot No.	XXXXXXXXXX
Model No.	XXXXXXXXXX
Quantity.	XXXX Pcs
Date:	DD MM YY
	MADE IN CHINA
	CUI Inc

\* The label stuck on inner boxes and the outer of carton.

## REVISION HISTORY

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rev.	description	date
1.0	initial release	03/12/2015
1.01	added notch to housing	05/16/2017
1.02	changed resonant frequency	07/18/2017

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



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CUI offers a one (1) year limited warranty. Complete warranty information is listed on our website.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.