



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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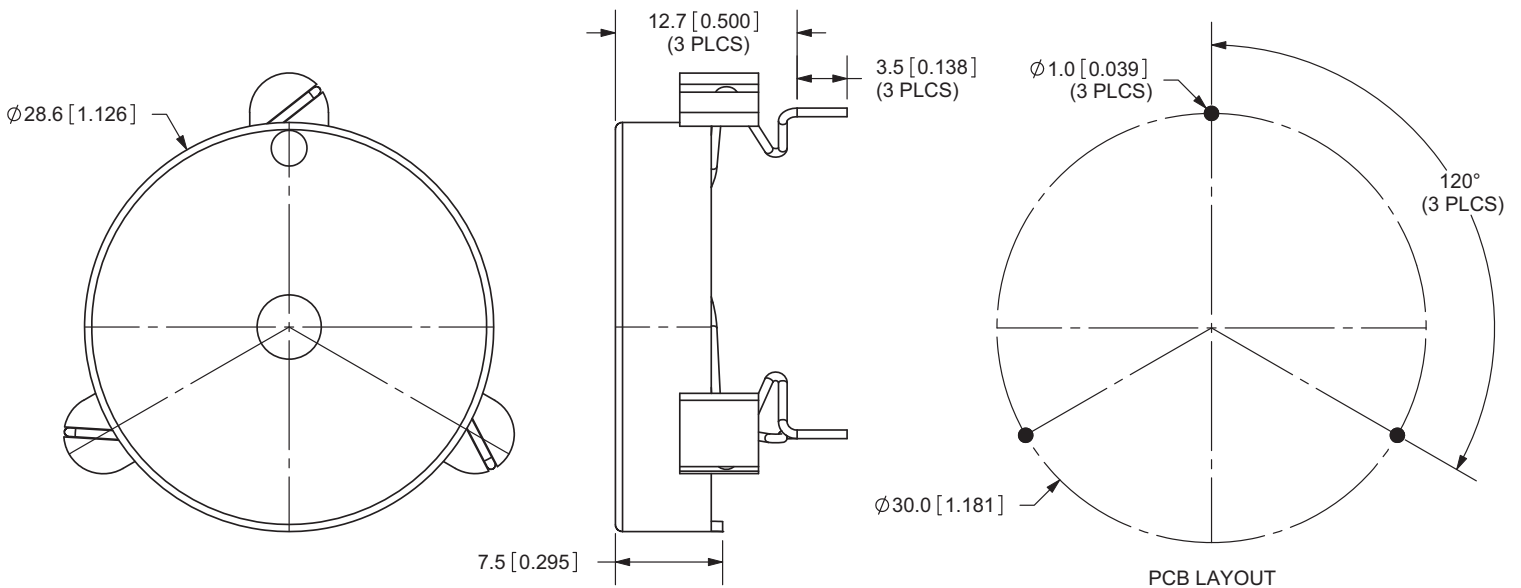
**PART NUMBER: CPE-2883**

**DESCRIPTION: PIEZO AUDIO TRANSDUCER**

## SPECIFICATIONS

parameter	conditions/description	min	nom	max	units
operating frequency		2.5	3	3.5	K Hz
operating voltage		3		28	V dc
operating current	at 12 V dc			8	mA
sound pressure level	at 30 cm / 12 V dc	83			dB
rated voltage		12			V dc
tone	continuous				
operating temperature		-30		85	°C
storage temperature		-40		95	°C
dimenstions	ø28.6 x H7.5 mm				
weight				3.8	g
material	ABS UL-94 1/16" HB high heat (black)				
terminal	pin type (au plating)				
RoHS	yes				

## APPEARANCE DRAWING



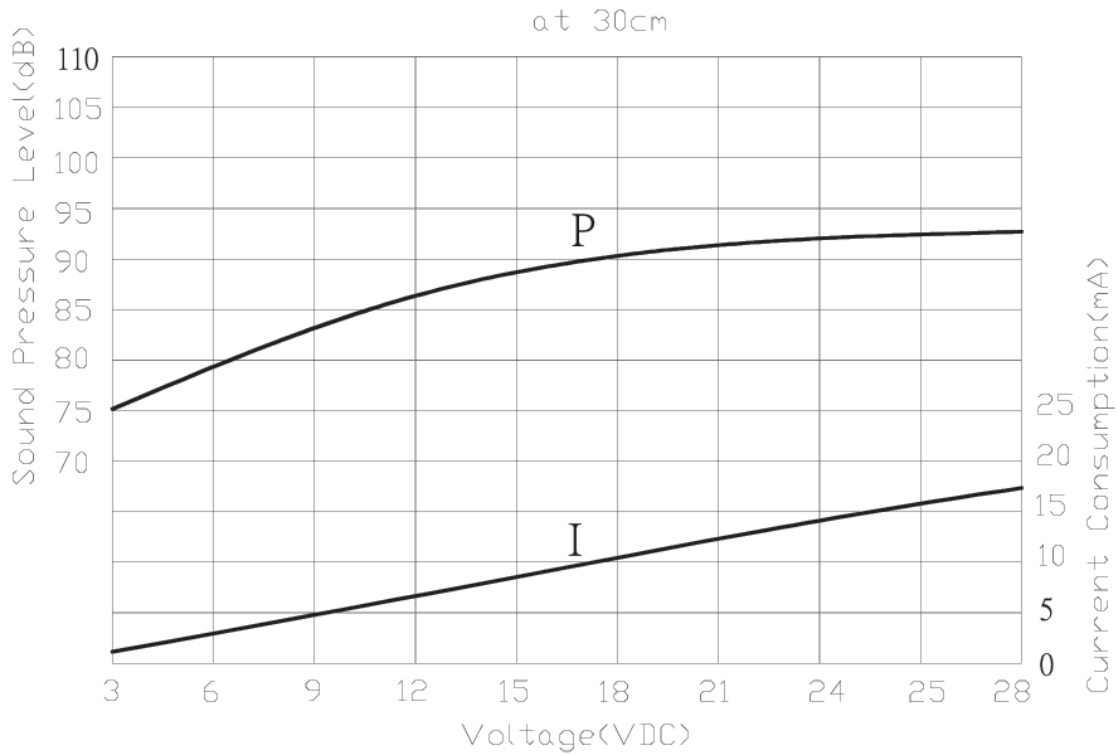
TOLERANCE:  
±0.3mm UNLESS OTHERWISE  
SPECIFIED



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## VOLTAGE: SPL / CURRENT CONSUMPTION CHARACTERISTICS

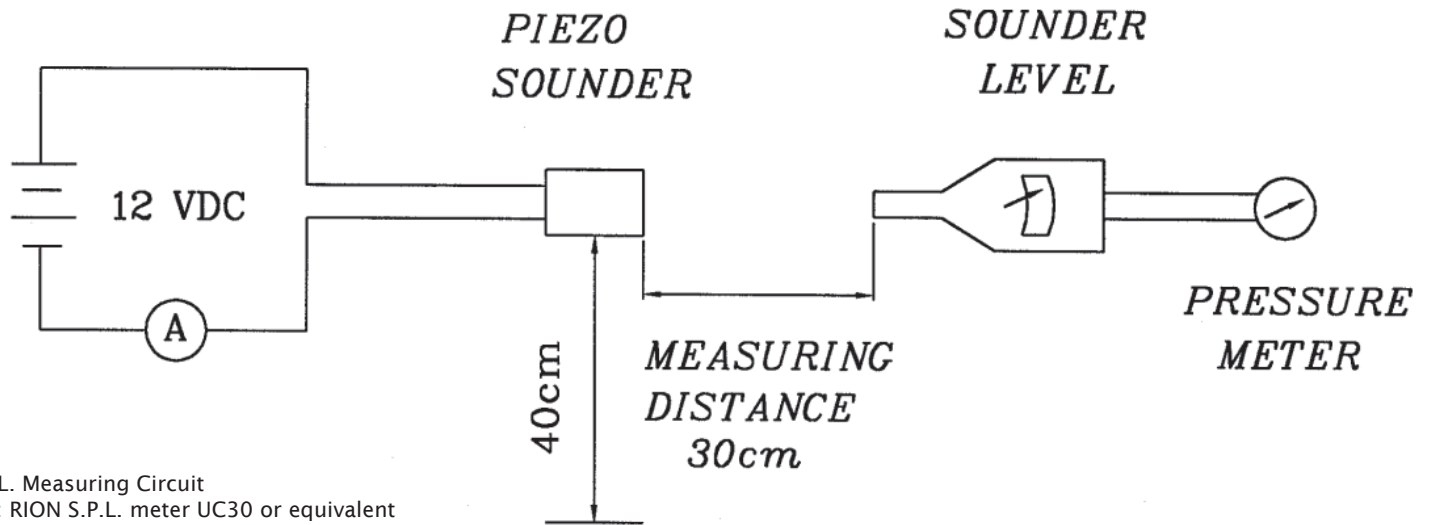


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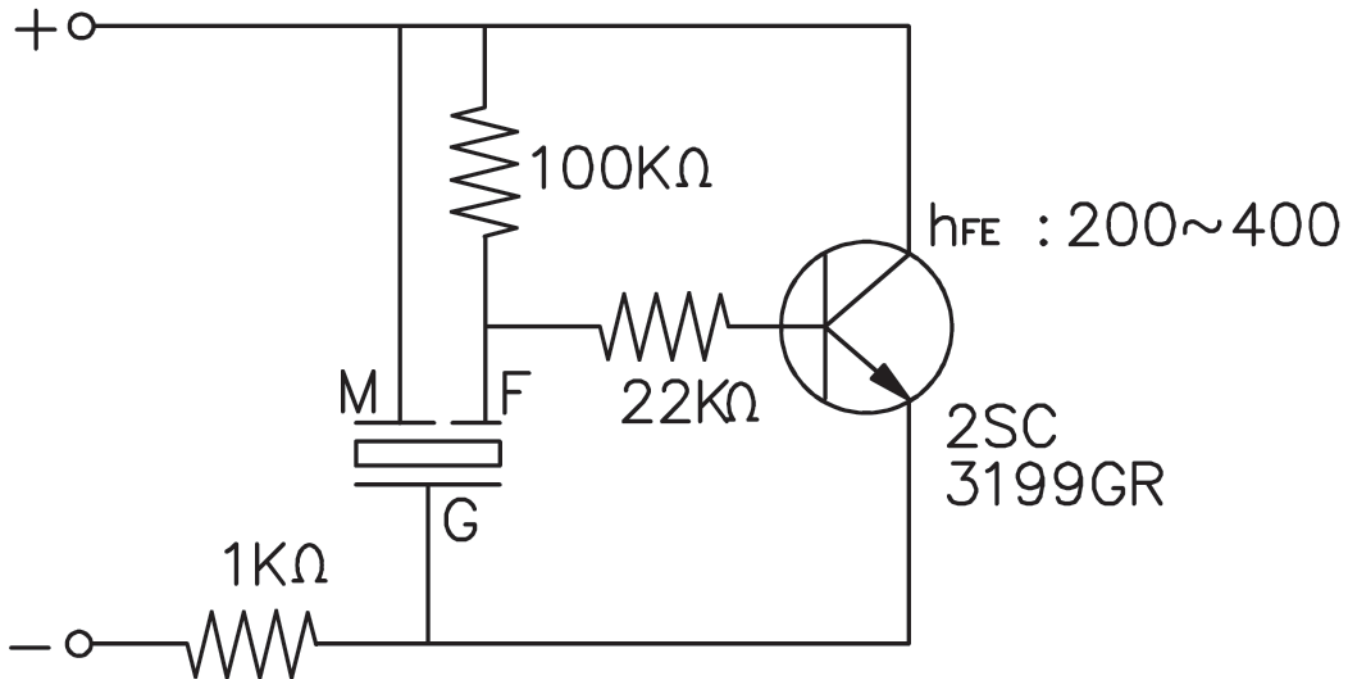
**MEASUREMENT METHOD**

1) S.P.L. measuring circuit



S.P.L. Measuring Circuit  
Mic: RION S.P.L. meter UC30 or equivalent

2) The current consumption and the sound pressure level are measured by using the recommended driving circuit as shown below.







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## MECHANICAL CHARACTERISTICS

item	test condition	evaluation standard
solderability <sup>1</sup>	Lead terminals are immersed in rosin for 5 seconds and then immersed in a solder bath of $+270 \pm 5^\circ\text{C}$ for $3 \pm 1$ seconds.	90% min. of the lead terminals will be wet with solder. (except the edge of the terminal)
soldering heat resistance	Lead terminals are immersed up to 1.5 mm from the buzzer's body in a solder bath of $300 \pm 5^\circ\text{C}$ for $3 \pm 0.5$ seconds or $260 \pm 5^\circ\text{C}$ for $10 \pm 1$ second.	No interference in operation.
terminal mechanical strength	The force of 9.8 N is applied for 10 sec. to each terminal in axial direction.	No damage or cutting off.
vibration test	The buzzer should be measured after a vibration amplitude of 1.5 mm with 10 ~ 55 Hz band of vibration frequency to each of the 3 perpendicular directions for 2 hours.	The value of oscillation frequency / current consumption should be $\pm 10\%$ of the initial measurements. The SPL should be within $\pm 10\text{dB}$ compared with the initial measurement.
drop test	The buzzer without packaging is subjected to 3 drops on each axis from the height of 75 cm onto a 40 mm thick wooden board.	

Notes: 1. Not recommended for wave soldering

## ENVIRONMENT TEST

item	test condition	evaluation standard
high temperature test	After being placed in a chamber at $+95^\circ\text{C}$ for 240 hours.	The buzzer will be measured after being placed at $+25^\circ\text{C}$ for 4 hours. The value of the oscillation frequency / current consumption should be $\pm 10\%$ compared to the initial measurements. The SPL should be within $\pm 10\text{dB}$ compared to the initial measurements.
low temperature test	After being placed in a chamber at $-40^\circ\text{C}$ for 240 hours.	
humidity test	After being placed in a chamber at $+40^\circ\text{C}$ and $90 \pm 5\%$ RH for 240 hours.	
temperature cycle test	The part will be subjected to 5 cycles. One cycle will consist of:	

## RELIABILITY TEST

item	test condition	evaluation standard
operating (life test)	<p>1. Continuous life test: The part will be subjected to 48 hours of continuous operation at <math>70^\circ\text{C}</math> with rated voltage applied.</p> <p>2. Intermittent life test: A duty cycle of 1 minute on, 1 minute off, a minimum of 5,000 times at room temp (<math>+25 \pm 2^\circ\text{C}</math>) with rated voltage applied.</p>	The buzzer will be measured after being placed at $+25^\circ\text{C}$ for 4 hours. The value of the oscillation frequency / current consumption should be $\pm 10\%$ compared to the initial measurements. The SPL should be within $\pm 10\text{dB}$ compared to the initial measurements.

## TEST CONDITIONS

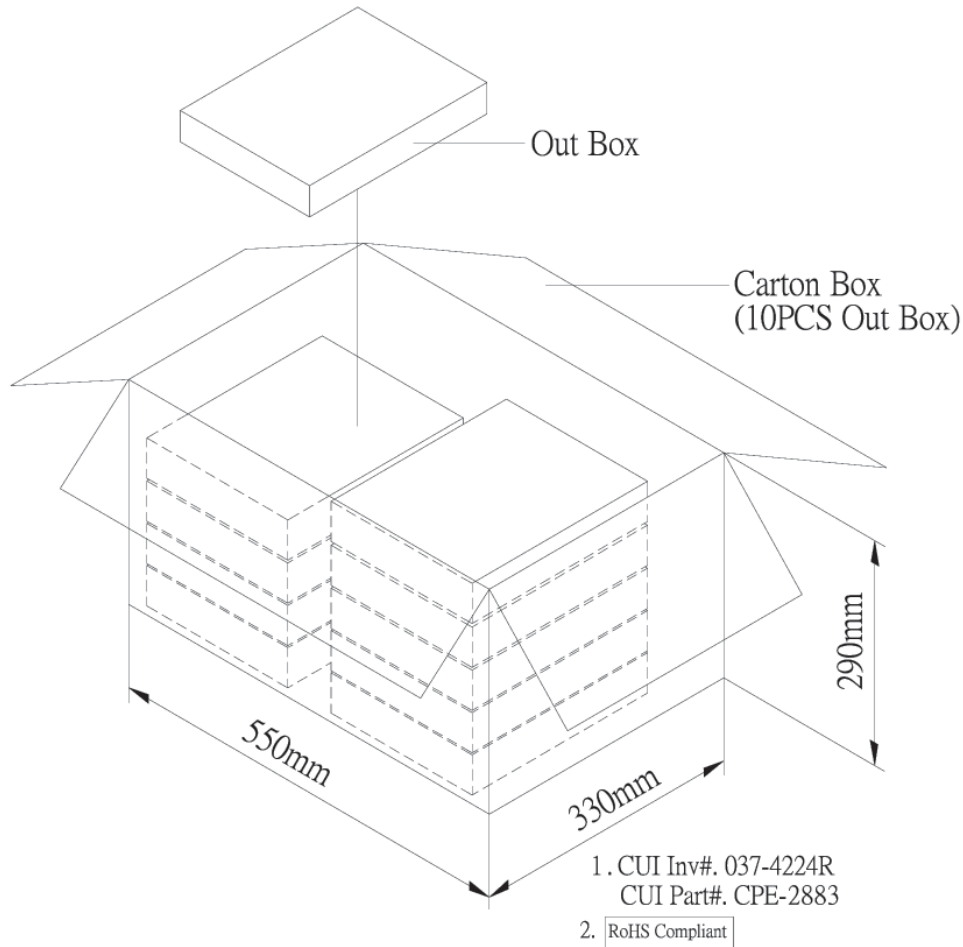
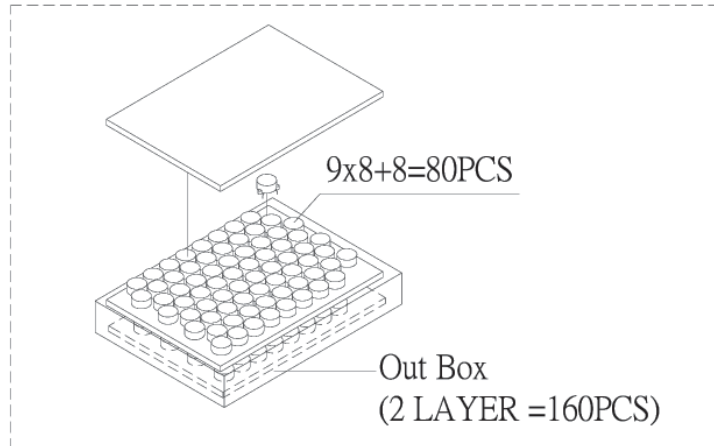
standard test conditions	a) Temperature: $+5 \sim +35^\circ\text{C}$	b) Humidity: 45 ~ 85%	c) Pressure: 860 ~ 1060 mbar
judgement test conditions	a) Temperature: $+25 \pm 2^\circ\text{C}$	b) Humidity: 60 ~ 70%	c) Pressure: 860 ~ 1060 mbar



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## PACKAGING



Out Box	310mmx248mmx49mm	2x80PCS=160PCS
Carton Box	550mmx330mmx290mm	160PCSx10=1,600PCS