

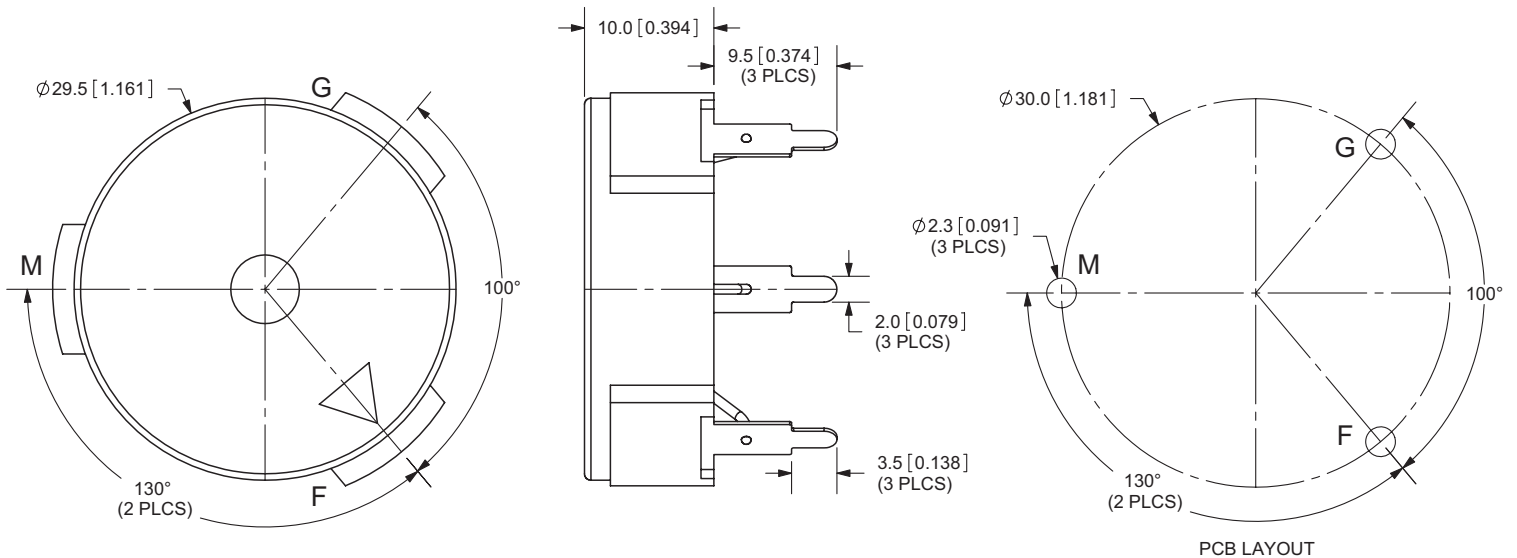
PART NUMBER: CPE-3085

DESCRIPTION: PIEZO AUDIO TRANSDUCER

SPECIFICATIONS

parameter	conditions/description	min	nom	max	units
operating frequency		3.1	3.6	4.1	K Hz
operating voltage		3		28	V dc
operating current	at 12 V dc			7	mA
sound pressure level	at 30 cm / 12 V dc	82			dB
rated voltage		12			V dc
tone	continuous				
operating temperature		-20		60	°C
storage temperature		-30		70	°C
dimenstions	ø29.5 x H10 mm				
weight				5.6	g
material	ABS UL-94 1/16" (HB)				
terminal	pin type (sn plating)				
RoHS	yes				

APPEARANCE DRAWING



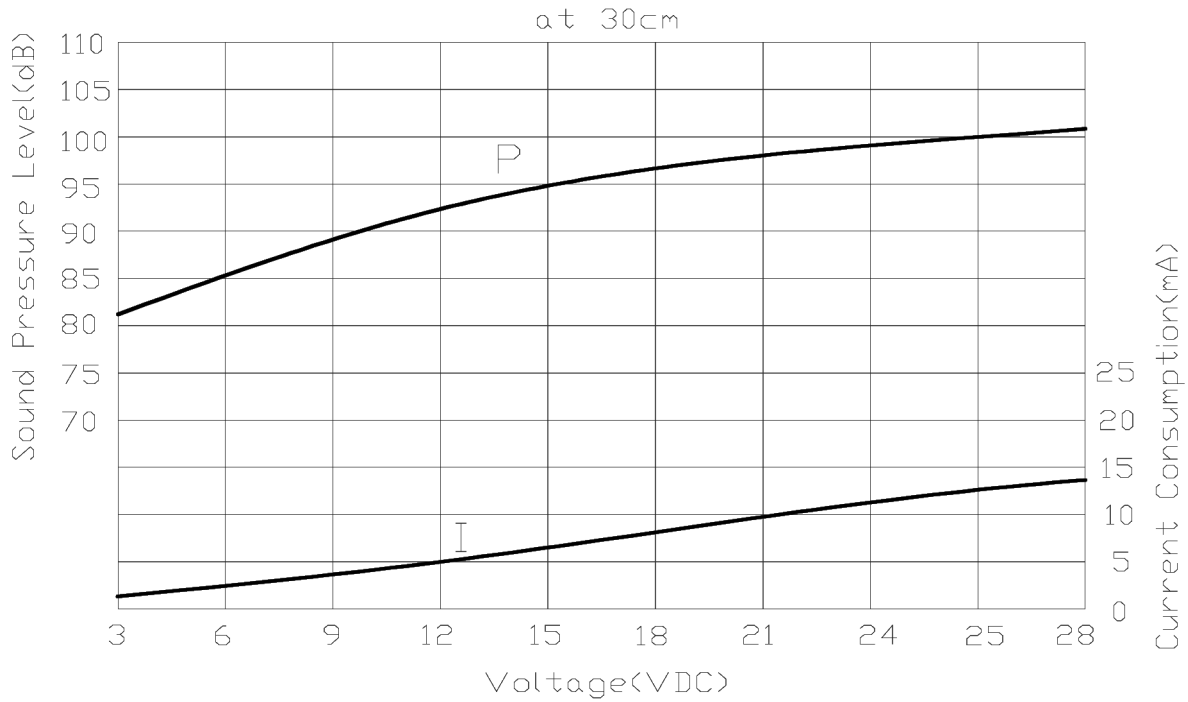
TOLERANCE:
 $\pm 0.5\text{mm}$ UNLESS OTHERWISE
SPECIFIED



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VOLTAGE: SPL / CURRENT CONSUMPTION CHARACTERISTICS

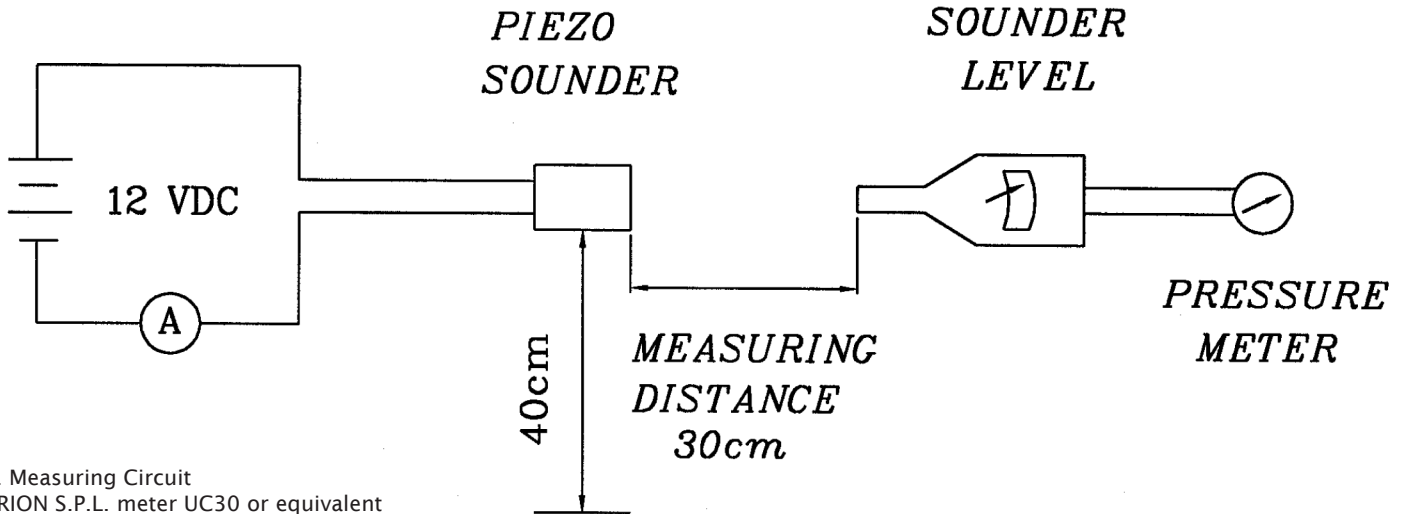


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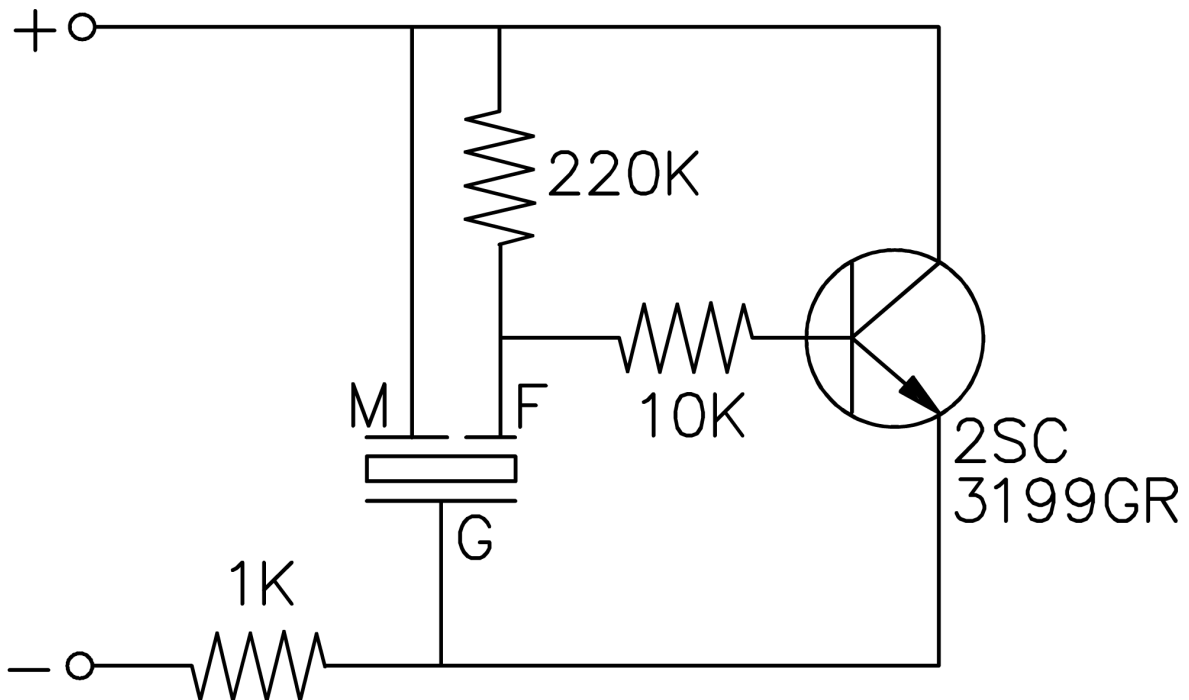
MEASUREMENT METHOD

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 ¹	Lead terminals are immersed in rosin for 5 seconds and then immersed in a solder bath of $+230 \pm 5^\circ\text{C}$ for 3 ± 0.5 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 ± 0.5 seconds or $260 \pm 5^\circ\text{C}$ for 10 ± 1 second.	No interference in operation.
terminal pull 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 $+70^\circ\text{C}$ 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 -30°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:	

The diagram illustrates a temperature cycle test profile. It starts at -30°C for 0.5 hours, then ramps up to $+25^\circ\text{C}$ over 0.5 hours. At $+25^\circ\text{C}$, it holds for 0.25 hours. It then ramps up to $+70^\circ\text{C}$ over 0.5 hours, holds at $+70^\circ\text{C}$ for 0.5 hours, ramps down to $+25^\circ\text{C}$ over 0.5 hours, and finally holds at $+25^\circ\text{C}$ for 0.25 hours. The total duration of one cycle is 3 hours.

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 45°C 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 ($+25 \pm 2^\circ\text{C}$) 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

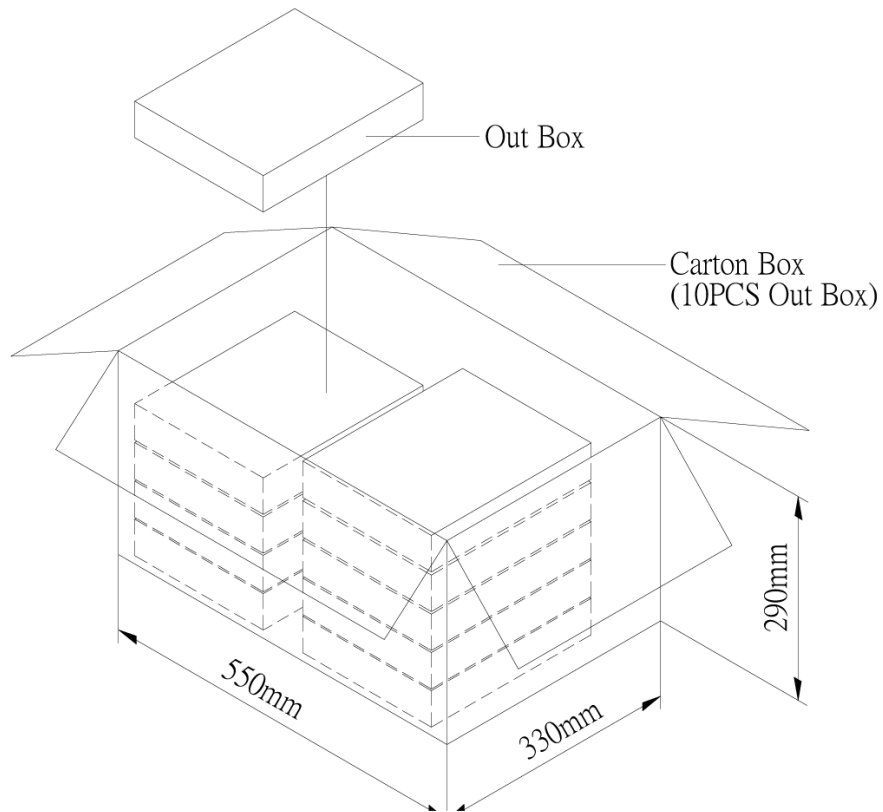
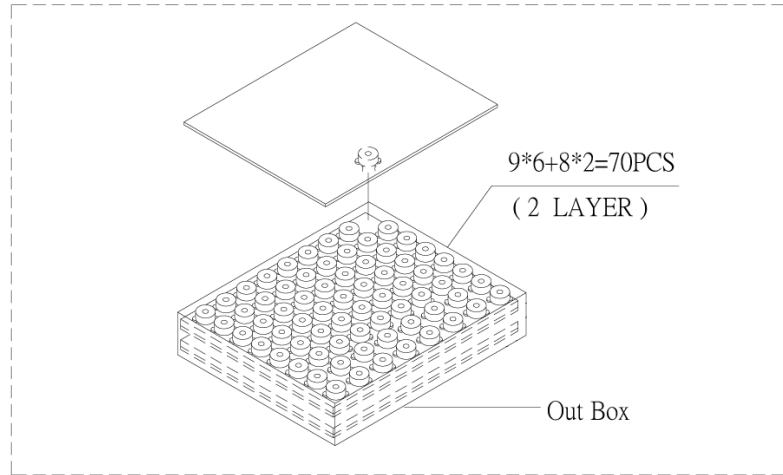
standard test conditions	a) Temperature: $+5 \sim +35^\circ\text{C}$	b) Humidity: 45 ~ 85%	c) Pressure: 860 ~ 1060 mbar
judgement test conditions	a) Temperature: $+25 \pm 2^\circ\text{C}$	b) Humidity: 60 ~ 70%	c) Pressure: 860 ~ 1060 mbar



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PACKAGING



1. CUI Inv#. 037-4227R

CUI Part#. CPE-3085

2. RoHS Compliant

Out Box	310mmx248mmx49mm	2x70PCS=140PCS
Carton Box	550mmx330mmx290mm	140PCSx10=1400PCS