

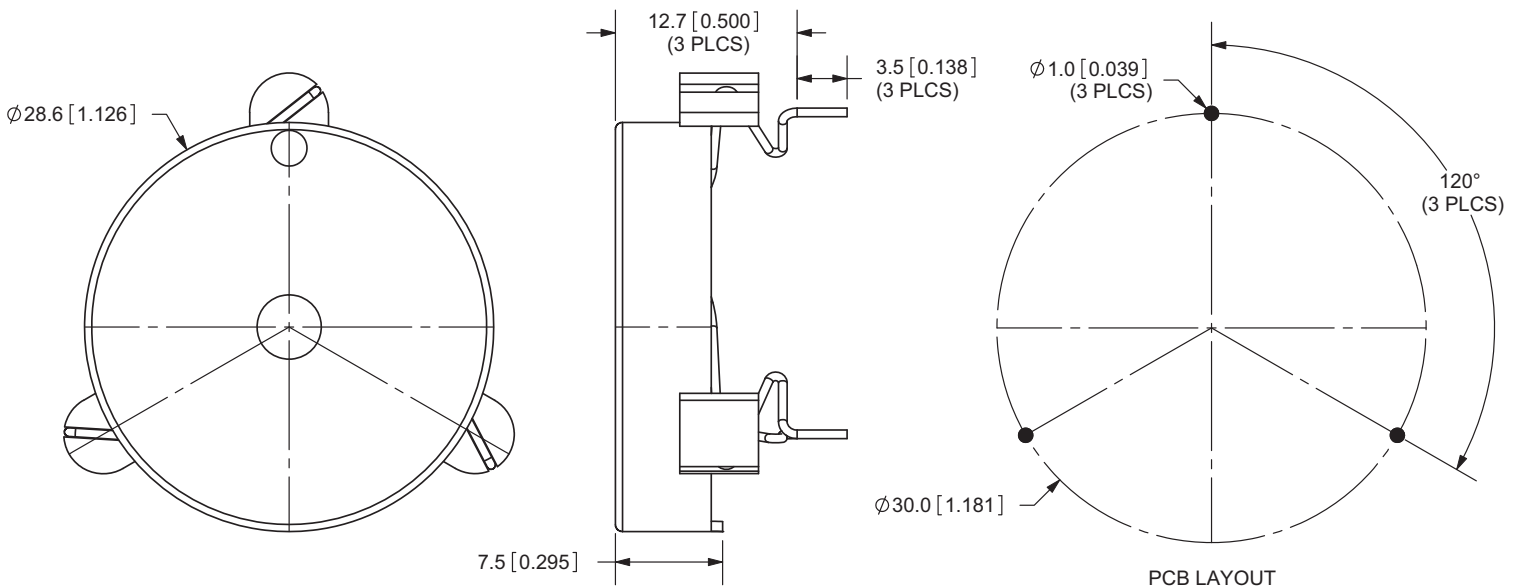
**PART NUMBER: CPE-2883**

**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



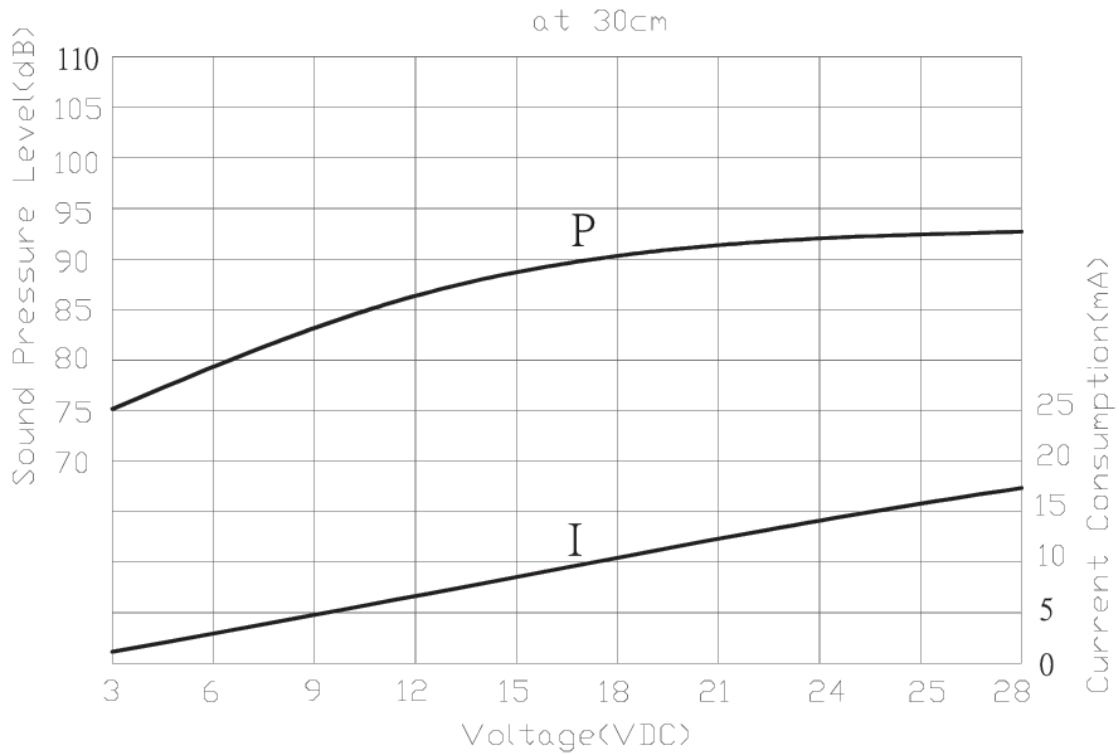
TOLERANCE:  
±0.3mm UNLESS OTHERWISE  
SPECIFIED



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## VOLTAGE: SPL / CURRENT CONSUMPTION CHARACTERISTICS

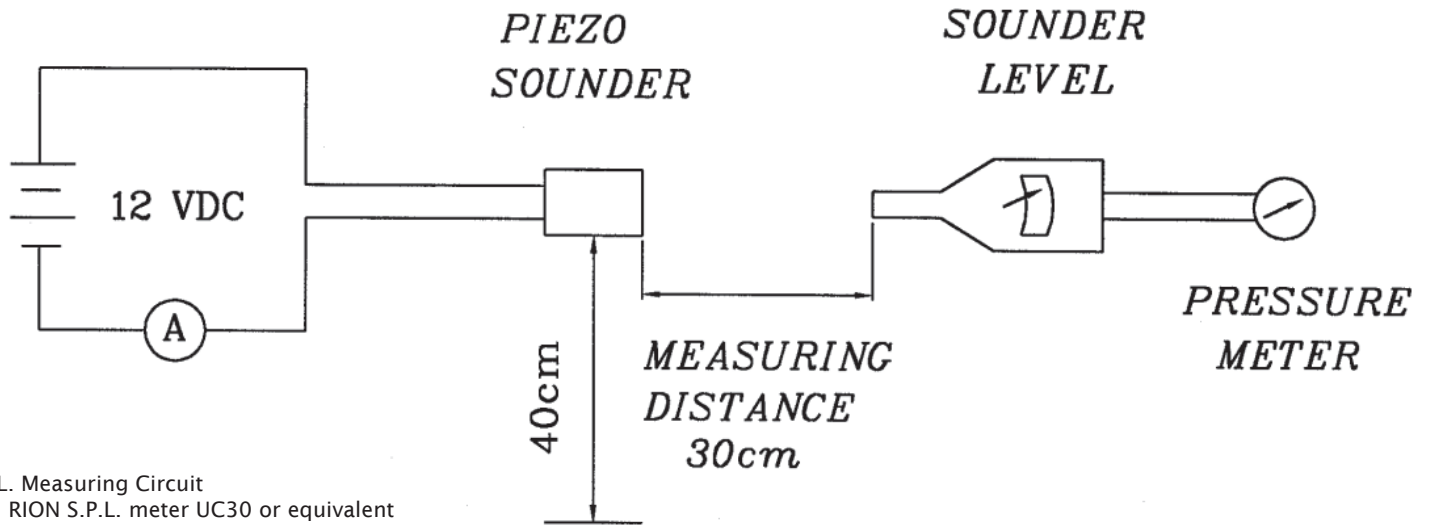


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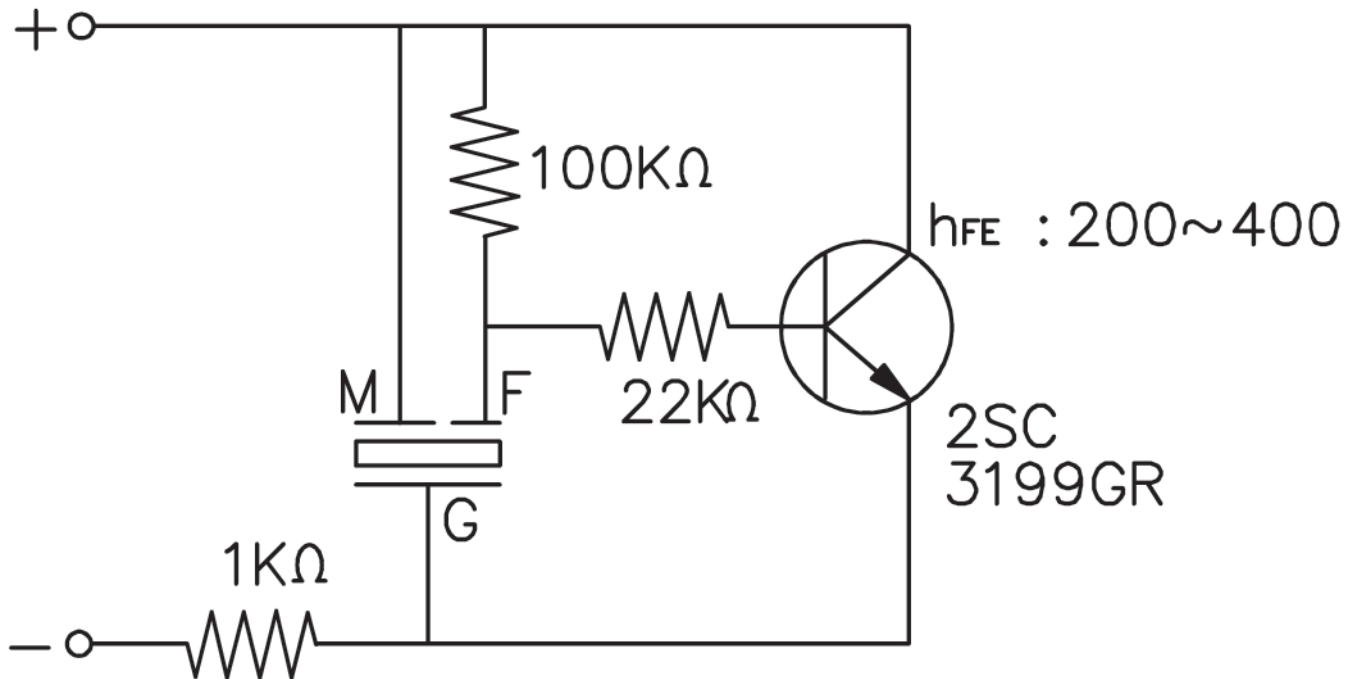
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**MEASUREMENT METHOD**

1) S.P.L. measuring circuit



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 ±5°C for 3 ±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 ±5°C for 3 ±0.5 seconds or 260 ±5°C for 10 ±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 ±10% of the initial measurements. The SPL should be within ±10dB 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°C for 240 hours.	The buzzer will be measured after being placed at +25°C for 4 hours. The value of the oscillation frequency / current consumption should be ±10% compared to the initial measurements. The SPL should be within ±10dB compared to the initial measurements.
low temperature test	After being placed in a chamber at -40°C for 240 hours.	
humidity test	After being placed in a chamber at +40°C and 90 ±5% RH for 240 hours.	
temperature cycle test	The part will be subjected to 5 cycles. One cycle will consist of:	
	<p>The diagram shows a temperature cycle over a total duration of 3 hours. The cycle consists of the following segments: 0.5hr at -40°C, 0.5hr ramping up to +25°C, 0.25hr at +25°C, 0.5hr ramping up to +95°C, 0.5hr at +95°C, 0.5hr ramping down to +25°C, and 0.25hr at +25°C.</p>	

**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 70°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 ±2°C) with rated voltage applied.</p>	The buzzer will be measured after being placed at +25°C for 4 hours. The value of the oscillation frequency / current consumption should be ±10% compared to the initial measurements. The SPL should be within ±10dB compared to the initial measurements.

**TEST CONDITIONS**

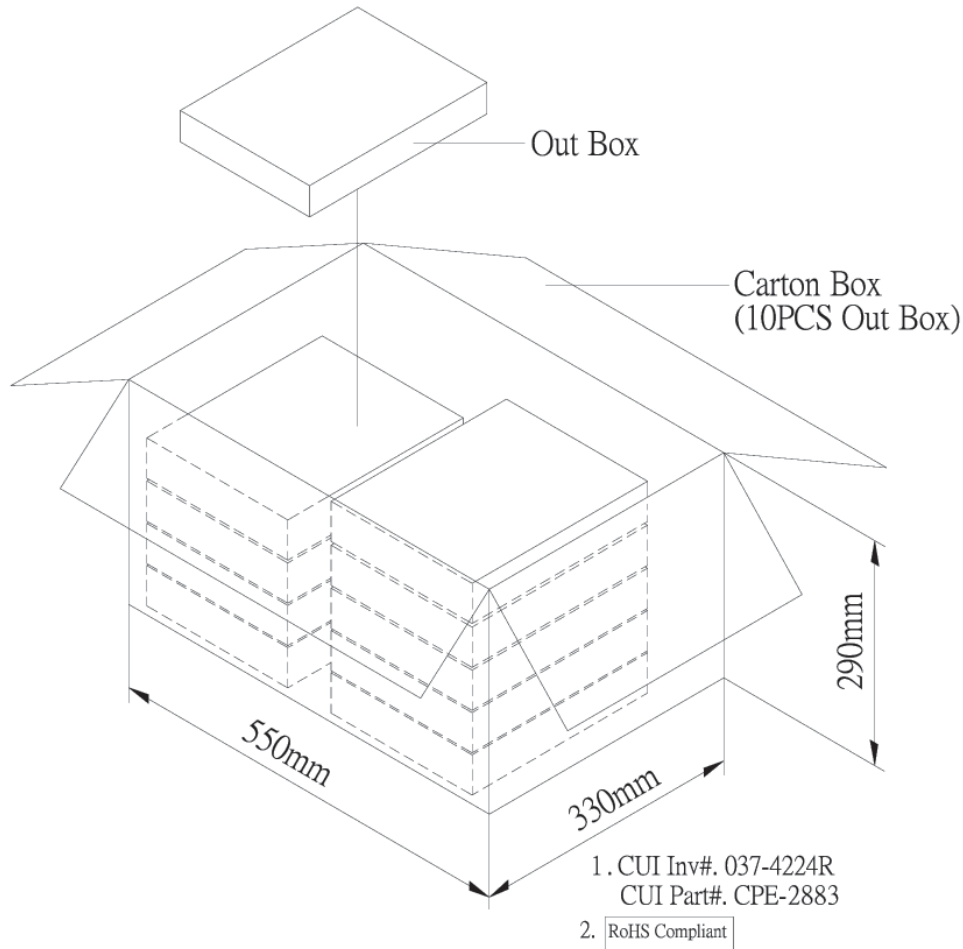
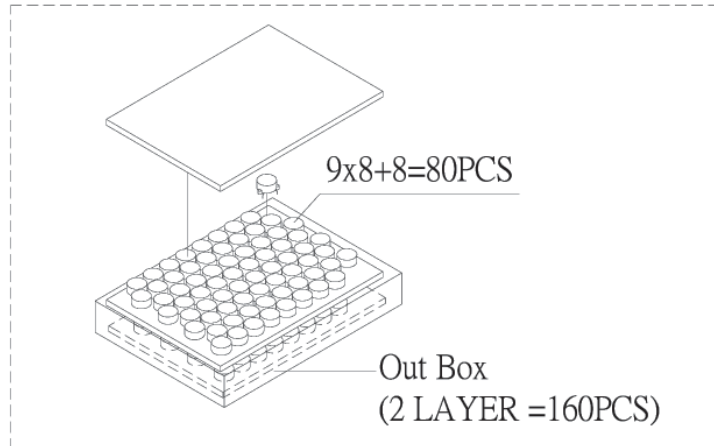
standard test conditions	a) Temperature: +5 ~ +35°C	b) Humidity: 45 ~ 85%	c) Pressure: 860 ~ 1060 mbar
judgement test conditions	a) Temperature: +25 ±2°C	b) Humidity: 60 ~ 70%	c) Pressure: 860 ~ 1060 mbar



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## PACKAGING



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