


CUI INC
date 06/2010

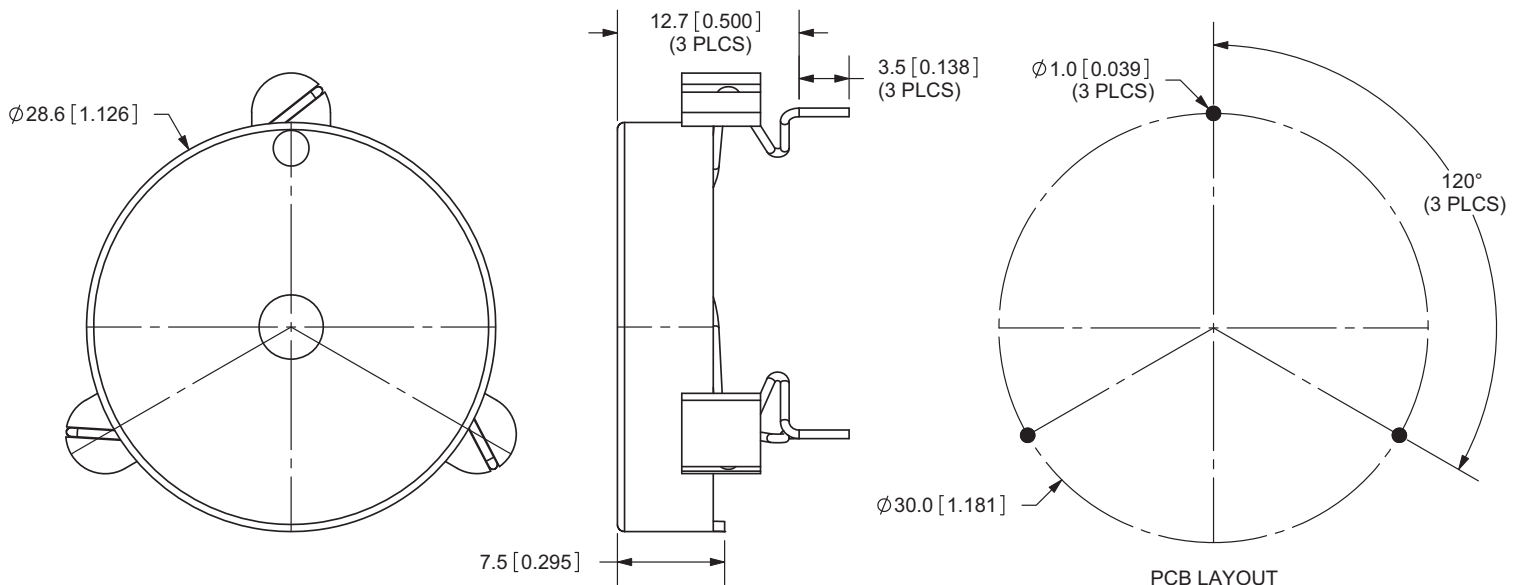
page 1 of 5

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



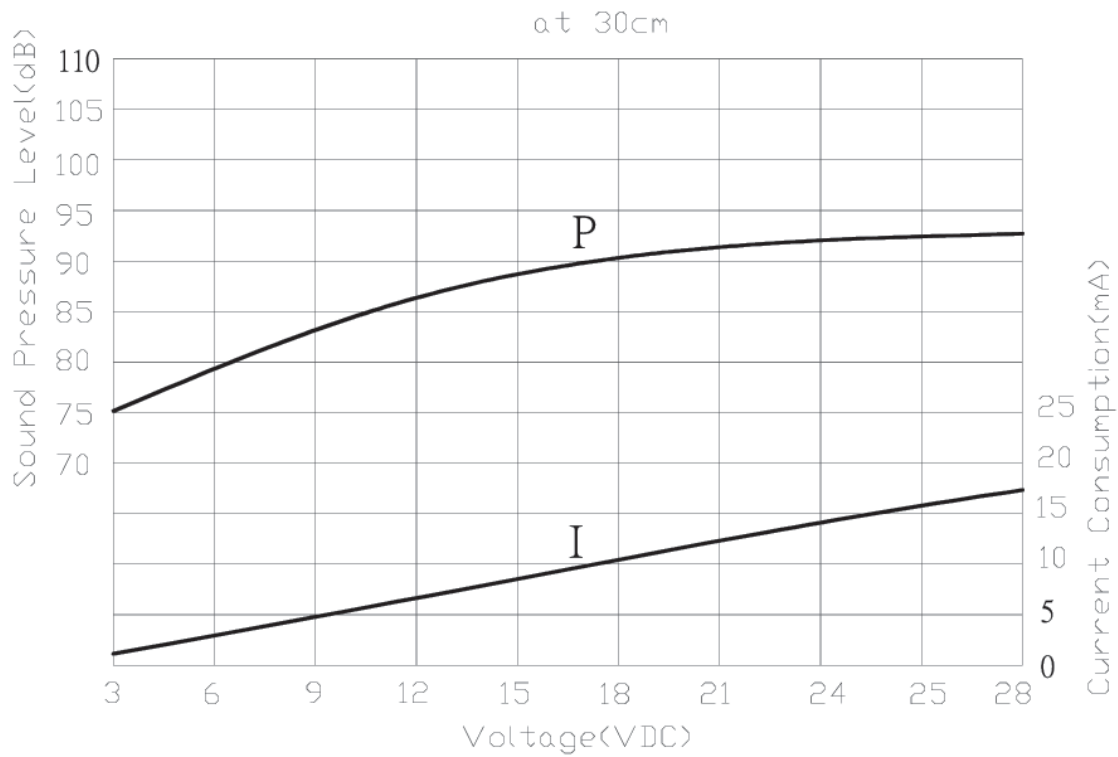
TOLERANCE:
 $\pm 0.3\text{mm}$ UNLESS OTHERWISE
 SPECIFIED



PART NUMBER: CPE-2883

DESCRIPTION: PIEZO AUDIO TRANSDUCER

VOLTAGE: SPL / CURRENT CONSUMPTION CHARACTERISTICS





CUI INC

date 06/2010

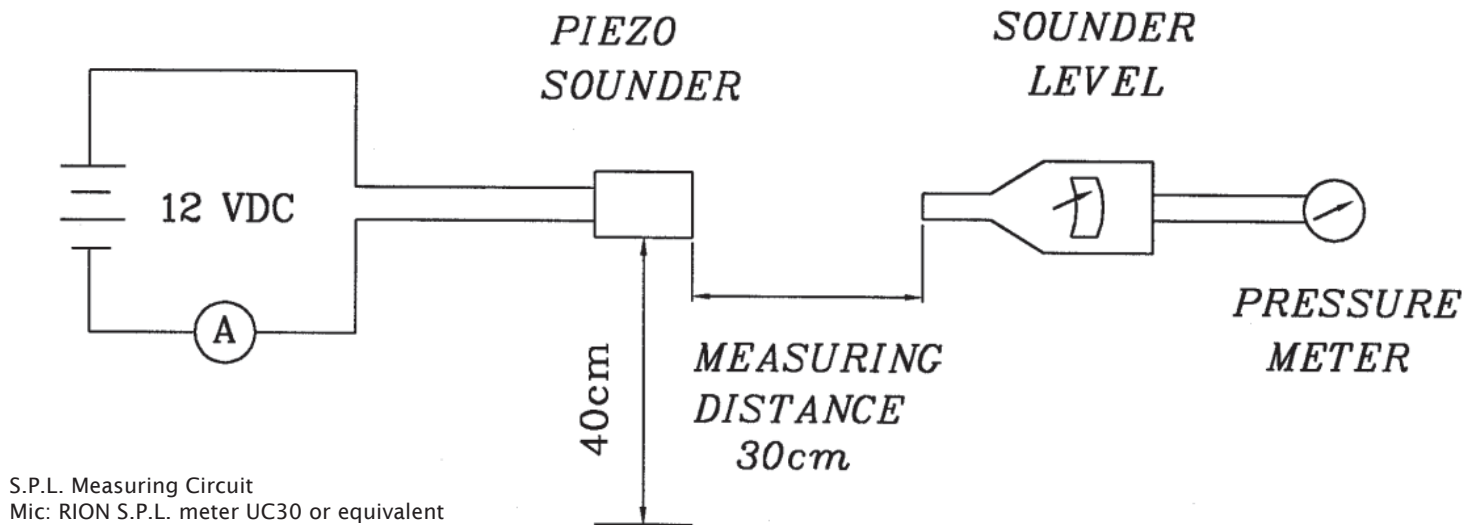
page 3 of 5

PART NUMBER: CPE-2883

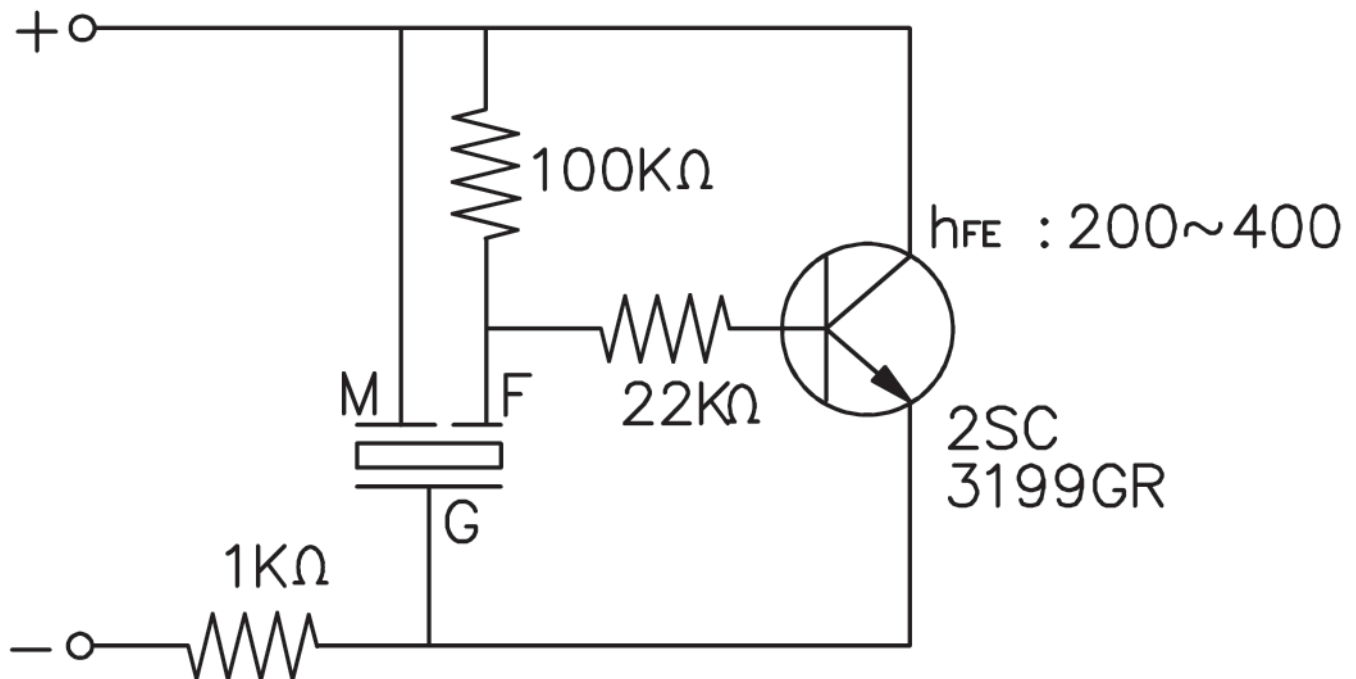
DESCRIPTION: PIEZO AUDIO TRANSDUCER

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.





PART NUMBER: CPE-2883

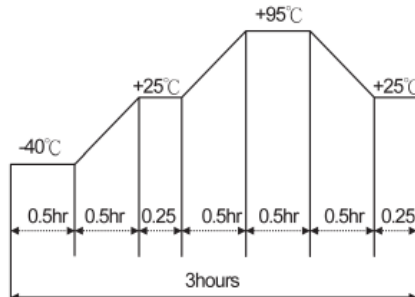
DESCRIPTION: PIEZO AUDIO TRANSDUCER

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 $+270 \pm 5^{\circ}\text{C}$ 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 $300 \pm 5^{\circ}\text{C}$ for 3 ± 0.5 seconds or $260 \pm 5^{\circ}\text{C}$ for 10 ± 1 second.	No interference in operation.
terminal 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°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 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 ($+25 \pm 2^{\circ}\text{C}$) 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



CUI INC

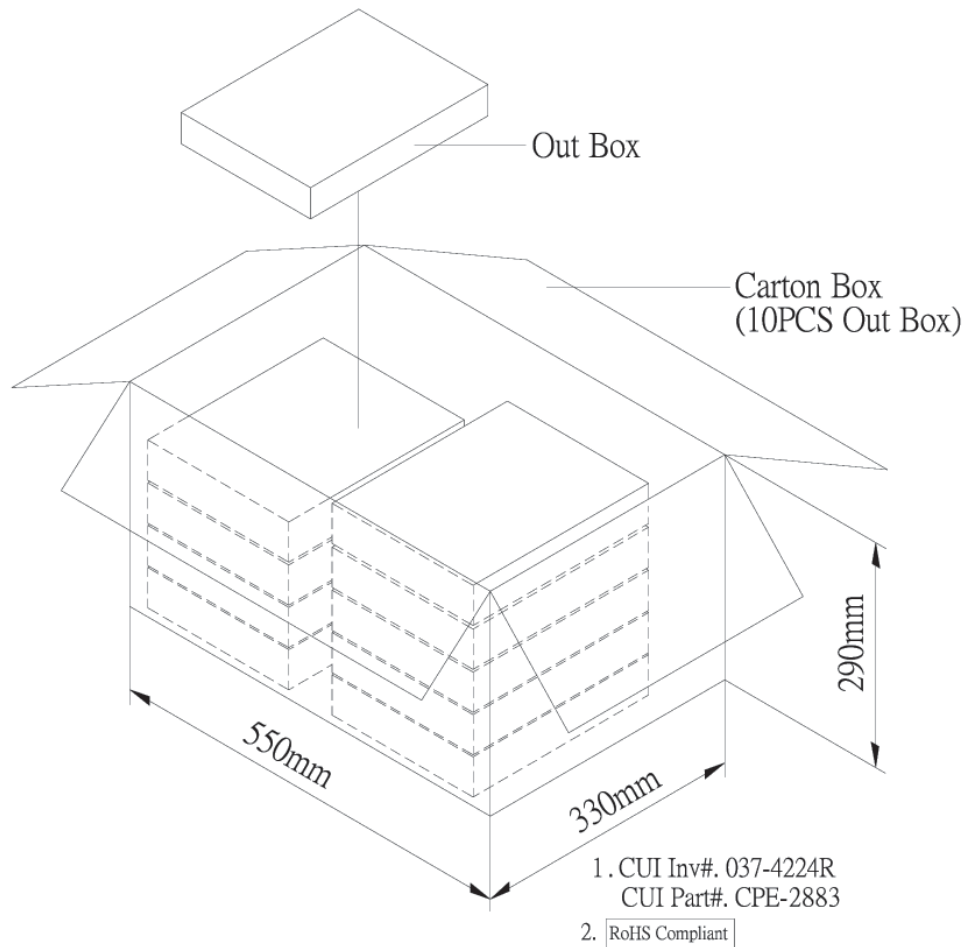
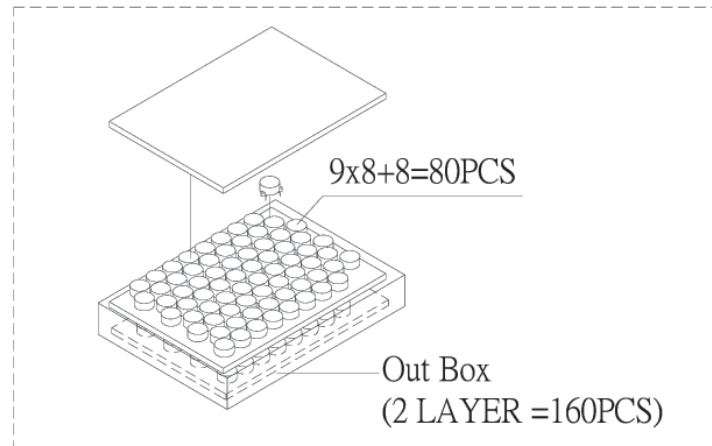
date 06/2010

page 5 of 5

PART NUMBER: CPE-2883

DESCRIPTION: PIEZO AUDIO TRANSDUCER

PACKAGING



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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[CUI Inc.:](#)

[CPE-2883](#)