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date 11/12/2007

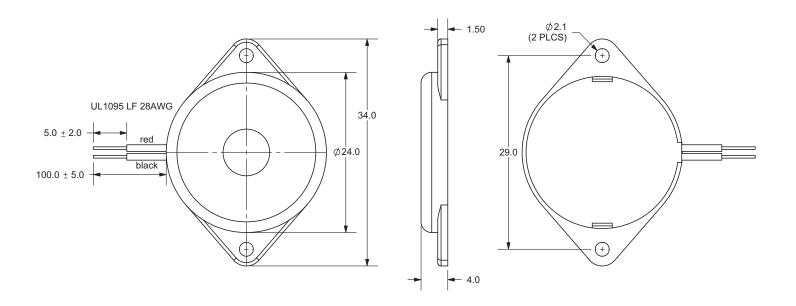
PART NUMBER: CPE-120 DESCRIPTION: piezo audio transducer

SPECIFICATIONS

operating voltage	30 Vp-p max.	
current consumption	8 mA max.	at 10 Vp-p, sqaure wave, 6.0 Khz
sound pressure level	88 db min.	at 10 cm/10 Vp-p, sqaure wave, 6.0 Khz
electrostatic capacity	12,000 ± 30%	at 1 Khz/1 V
operating tempurature	-30 ~ +85° C	
storage tempurature	-40 ~ +95° C	
dimensions	Ø24.0 x H4.0 mm	
weight	2.4 g max.	
material	ABS UL-94 1/16" HB high h	neat (black)
terminal	wire type	
RoHS	yes	

APPEARANCE DRAWING

tolerance: ±0.5 units: mm



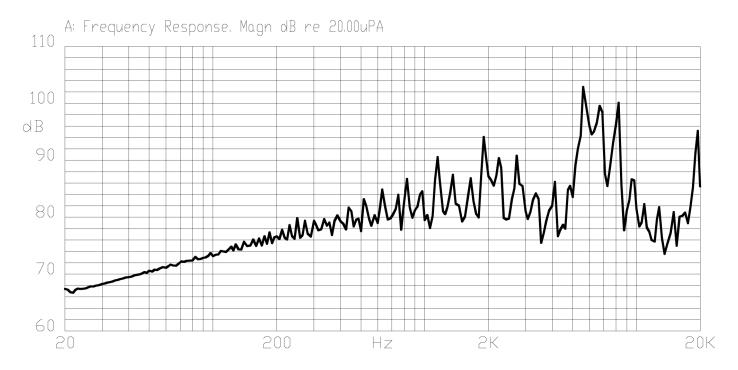


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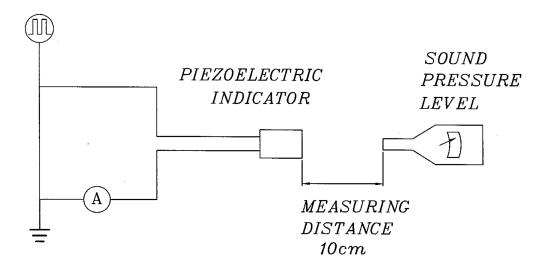
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FREQUENCY RESPONSE CURVE



MEASUREMENT METHOD



S.P.L. Measuring Circuit

Input Signal: 10 Vp-p, 6.0 KHz, square wave Mic: RION S.P.L. meter UC30 or equivalent

S.G.: Hewlett Packard 33120A function generator or equivalent



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MECHANICAL CHARACTERISTICS

item	test condition		evaluation standard
solderability	Stripped wires are immersed in rosin for		90% min. of the lead terminals
	5 seconds and then immersed in solder bath		will be wet with solder
	of 270 ±5°C for 3 ±1 sec	conds.	(except the edge of the terminal).
soldering heat resistance	Stripped wires are imme	Stripped wires are immersed up to 1.5mm from	
	buzzer's body in solder	buzzer's body in solder bath of 300 ±5°C for	
	3 ±0.5 seconds or 260 ±	3 ±0.5 seconds or 260 ±5°C for 10 ±1 seconds.	
lead wire pull strength	The pull force shall be a	The pull force shall be applied to lead wire:	
	Horizontal	3.0N for 30 seconds	No damage or cutting off.
	Vertical	2.0N for 30 seconds	
vibration	The buzzer shall be mea	The buzzer shall be measured after applying	
	a vibration amplitude of 1.5 mm with 10 to		frequency/current consumption
	55 Hz band of vibration frequency to each of		should be ±10% of the initial
	the 3 perpendicular directions for 2 hours.		measurements. The SPL should
drop test	The part will be dropped from a height of		be within ±10dB compared with
	75 cm onto a 40 mm thick wooden board 3		the initial measurement.
	times in 3 axes (X, Y, Z) for a total of 9 drops.		

ENVIRONMENT TEST

item	test condition	evaluation standard
high temp. test	After being placed in a chamber at +95°C for 240 hours.	
low temp. test	After being placed in a chamber at -40°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.
humidity test	After being placed in a chamber at +40°C and 90±5% relative humidity for 240 hours.	
temp. cycle test	The part shall be subjected to 5 cycles. One cycle will consist of: +95 °C +25 °C +25 °C -40 °C 0.5hr 0.5hr 0.25 0.5hr 0.5hr 0.5hr 0.25 3hours	



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RELIABILITY TEST

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

TEST CONDITIONS

standard test condition	a) tempurature: +5 ~ +35°C	b) humidity: 45 - 85%	c) pressure: 860-1060 mbar
judgement test condition	a) tempurature: +25 ±2°C	b) humidity: 60 - 70%	c) pressure: 860-1060 mbar



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PACKAGING

