

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!



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date 06/2008

PART NUMBER: CMC-2242PBL-A DESCRIPTION: electret condenser microphone

SPECIFICATIONS

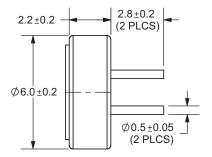
directivity	omnidirectional	
sensitivity (S)	-42 ±3 dB	f = 1KHz, 1Pa 0dB = 1V/Pa
sensitivity reduction (ΔS-Vs)	-3 dB	f = 1KHz, 1Pa Vs = 2.0 ~ 1.5 V dc
operating voltage	2 V dc (standard), 10 V de	c (max.)
output impedance (Zout)	2.2 ΚΩ	f = 1KHz, 1Pa
operating frequency (f)	100 ~ 20,000 Hz	
current consumption (IDSS)	0.5 mA max.	$Vs = 2.0 V dc RL = 2.2K\Omega$
signal to noise ratio (S/N)	58 dBA	f = 1KHz, 1Pa A-weighted
operating temperature	-20 ~ +70° C	
storage temperature	-20 ~ +70° C	
dimensions	ø6.0 x 2.2 mm	
weight	0.15 g max.	
material	Al	
terminal	pin type (Au plating)	
RoHS	yes	

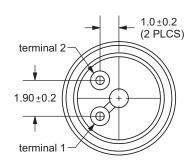
note:

We use the "Pascal (Pa)" indication of sensitivity as per the recomendation of I.E.C. (International Electrotechnical Commission). The sensitivity of "Pa" will increase 20dB compared to the "ubar" indication. Example: -60dB (0dB = 1V/ubar) = -40dB (1V/Pa)

APPEARANCE DRAWING

tolerances not shown: ±0.3mm





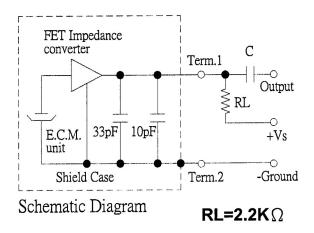


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DESCRIPTION: electret condenser microphone

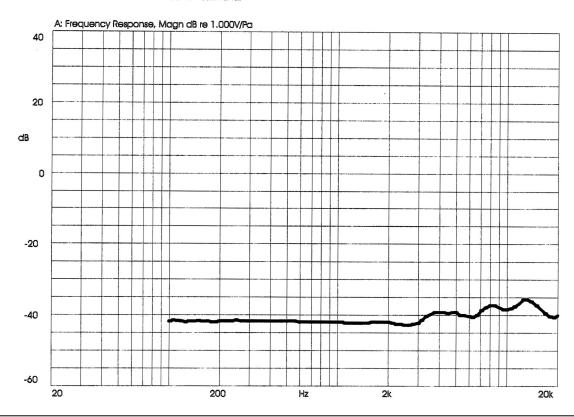
MEASUREMENT CIRCUIT

PART NUMBER: CMC-2242PBL-A



FREQUENCY RESPONSE CURVE

X:1.0000kHz *Y:-42.00dB ZA:Live Curve SSR Fund.





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PART NUMBER: CMC-2242PBL-A **DESCRIPTION:** electret condenser microphone

MECHANICAL CHARACTERISTICS

item	test condition	evaluation standard
soldering heat resistance	Lead terminals are immersed in solder bath of	No interference in operation.
-	270 ±5°C for 2 ±0.5 seconds.	·
PCB wire pull strength	The pull force will be applied to double lead	
	wire:	No damage or cutting off.
	Horizontal 4.9N (0.5kg) for 30 seconds	
vibration	The part will be measured after applying a	
	vibration amplitude of 1.5 mm with 10 to 55 Hz	
	band of vibration frequency to each of the	After any tests, the sensitivity
	3 perpendicular directions for 2 hours.	should be within ±3dB compared
drop test	The part will be dropped from a height of	to the initial measurement.
	1 m onto a 20 mm thick wooden board 3 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 +70°C for	The part will be measured after
	72 hours.	
low temp. test	After being placed in a chamber at -20°C for	
	72 hours.	
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 10 cycles. One	
	cycle will consist of:	
	+70℃	being placed at +25°C for 6
	+25°C +25°C -20°C	hours. After any tests, the sensitivity should be within ±3dB compared to the initial measurement.
	1hr 0.5hr 1hr 0.5hr 1hr 0.5hr 1hr	
	5.5 hrs	

TEST CONDITIONS

standard test condition a) temperature: $+5 \sim +35^{\circ}$ C b) humidity: 45 - 85% c) pressure: 860-1060 mbar judgement test condition a) temperature: $+25 \pm 2^{\circ}$ C b) humidity: 60 - 70% c) pressure: 860-1060 mbar



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PART NUMBER: CMC-2242PBL-A **DESCRIPTION:** electret condenser microphone

PACKAGING

