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06/2008

**PART NUMBER:** CMC-2742PBJ-A **DESCRIPTION:** electret condenser microphone

# **SPECIFICATIONS**

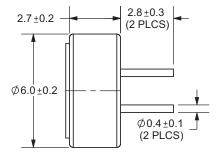
directivity	omnidirectional	
sensitivity (S)	-42 ±3 db	f = 1KHz, 1Pa 0dB = 1V/Pa
sensitivity reduction (ΔS-Vs)	-3 dB	f = 1KHz, 1Pa Vs = 2.0 ~ 1.5 V dc
operating voltage	2 V dc (standard), 10 V de	c (max.)
output impedance (Zout)	2.2 ΚΩ	f = 1KHz, 1Pa
operating frequency (f)	20 ~ 20,000 Hz	
current consumption (IDSS)	0.4 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 2.7 mm	
weight	0.17 g max.	
material	Al	
terminal	pin type (Au plating, hand soldering only)	
RoHS	yes	

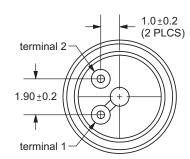
note:

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



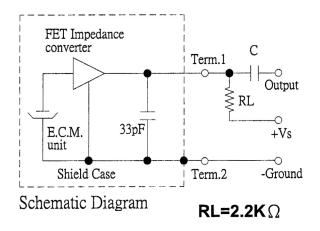




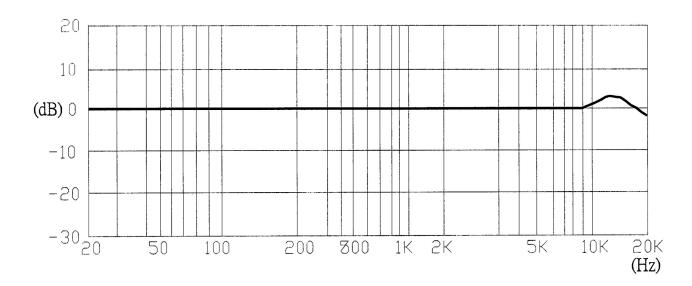
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# **MEASUREMENT CIRCUIT**



#### FREQUENCY RESPONSE CURVE





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# **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 being placed at +25°C for 6 hours. After any tests, the
	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℃	
	+25°C +25°C -20°C	sensitivity should be within ±3dE 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 ~ +35°C b) humidity: 45 - 85% c) pressure: 860-1060 mbar judgement test condition a) temperature: +25 ±2°C b) humidity: 60 - 70% c) pressure: 860-1060 mbar



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# **PACKAGING**

