



PRODUCT INFORMATION

PART #:	CEM-OB6027-8JAD403CR	Revision: 1-2013
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Omni Directional Back Electret Condenser Microphone

DESCRIPTION:

Challenge Electronics Omni Direction Back Electret Condenser Microphone with a FET, 6.0 mm diameter and 2.7 mm high, PCB version # 8, JA = 10 V max Power Supply, -40 ± 3 dB sensitivity, D = 2.2 K Ω External Loading Resistance, Contact Points termination, RoHS Lead Free Compliant.

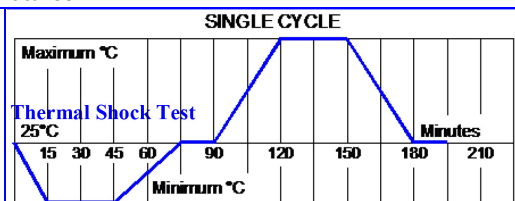
FEATURES:

- RoHS, Lead Free Compliant
- ISO 9001 & ISO 14001 Certified
- Green Product

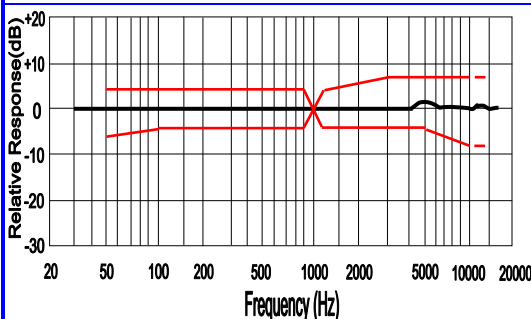
SPECIFICATIONS

Direction	Omni Directional Back Electret	Compliance	RoHS Lead Free
Operating Voltage Range	1.0 Vdc ~ 10.0 Vdc	Power Supply (Vs)	2.0 V
Frequency Range	50 ~ 20,000 Hz.	Maximum Current	0.5 mA
Sensitivity	- 40.0 ± 3.0, (0 dB = 1V / Pa) at 1K Hz.	Minimum Signal to Noise Ratio	58
Sensitivity Reduction	3.0 V to 2.0 V Maximum -3 dB	Maximum input S.P.L.	110 dB at 1.0 KHz, THD <1%
Operating Temperature	-40°C to + 85°C	Storage Temperature	-40°C to + 85°C
Loading Resistance (RL)	External, 2.2 K Ohms, Vs =2.0 V	Built in Capacitors	10 + 33pF
Termination	Contact Points		
Housing Material	Aluminum / Magnesium Alloy	PCB Version Style #	8
Dimensions	Length / Diameter 6.0 mm	Width mm	Height 2.7 mm
Options	Approximate Weight	0.2 grams	

RELIABILITY

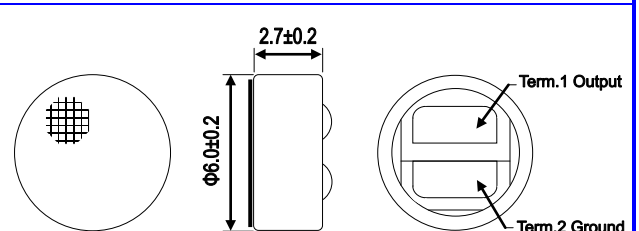
Thermal Operating Temperature Test	240 hours continuous operation at Rated Power , at Maximum Rated Operating Temperature *
	240 hours continuous operation at Rated Power , at Minimum Rated Operating Temperature *
Thermal Storage Temperature Test	240 hours storage at Maximum Rated Storage Temperatures *
	240 hours storage at Minimum Rated Storage Temperatures *
Thermal Shock Test	<p>5 cycles of Minimum and Maximum Operating Temperature, Each cycle shall be set per diagram below and is three (3) hours long *</p> 
Humidity Test	240 Hours at +40°C±2°C. 90-95% RH *
Operation Life Test	Must perform normal with program White Noise source at Rated Power for 100 Hours per (EIA)
Vibration Test	2 Hours of at 1.5 mm with 10 to 55 Hz. vibration frequency to each of 3 perpendicular directions *
Termination Strength	Maximum pull of 0.5 kg strength for 3 seconds
Drop Test	Dropped naturally from 1 meter height onto the surface of 40 mm wooden board, 3 axes (X,Y,Z) directions, 3 times (6 times total) *
Reliability Test Performance *	Parts should conform to original performance within ±5 dB tested with Rated Power , after 3 hours of recovery period
Warranty	For a period of one (1) year from date of shipping under normal operations conditions

TYPICAL FREQUENCY RESPONSE



DIMENSIONS

Units in: mm Tolerance: ±0.3 mm





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Revision	Description	By	Date
1-2013	Updated Schematic and Storage/Operating Temperatures	Walter Sargent	11/9/2013