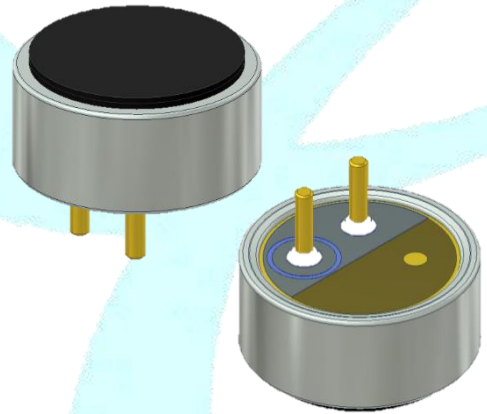


**(R)BGO-27PH30-C1033 H/F**

Φ6, PIN Type

OMNI-DIRECTIONAL



**Best sound electronics**

Value no1. Micro sound provider

Creative technology starts from respecting of life  
of the individuals

Creative technologies to respect human life

**Best sound electronics**

Value no1. Micro sound provider

We offer you happiness with our excellent technology  
beyond an ordinary sound what you expect

Superior technology to deliver happiness

**Best sound electronics**

Value no1. Micro sound provider

Keep basic fundamentals to fill sound with  
new innovations

Creative technologies to respect human life



## 1. INTRODUCTION

- Analog Electret Condenser Microphone
- Circle Type, PIN type
- Single & Differential Mode
- Sensitivity is Typical -30dBV/Pa
- Omni-directional
- RF Shielded
- Compatible with Sn/Pb and Halogen-free solder process
- RoHS compliant

## 2. APPLICATIONS

- Smartphones
- Ear-sets, Bluetooth Headsets
- Tablet Computers
- Wearable Devices
- Electrical Appliances
- Voice Recognition Systems of Appliances

## 3. MODEL NO.

**(R)BGO-27PH30-C1033 H/F**

## 4. GENERAL MICROPHONE SPECIFICATIONS

Test Condition :  $23 \pm 2^\circ\text{C}$ , Room Humidity =  $55 \pm 20\%$ , VCC=2.0V, unless otherwise noticed.

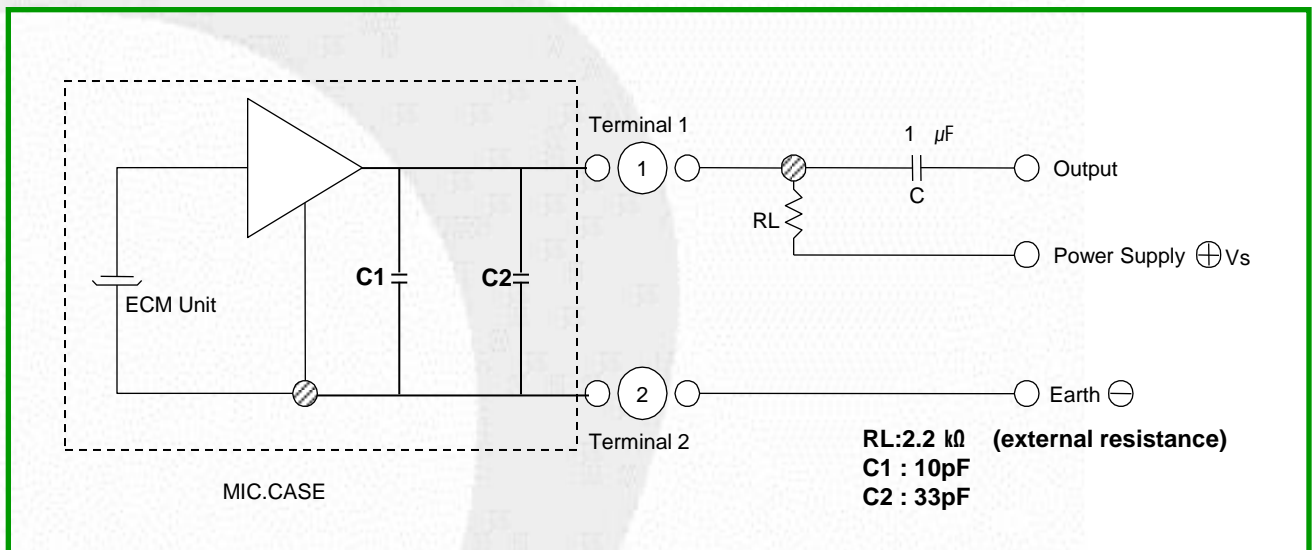
Parameter	Conditions	Min	Typ	Max	Units
<b>Directivity</b>		<b>Omni-directional</b>			
<b>Operating Voltage</b>		<b>1.5</b>	-	<b>5</b>	V
<b>Sensitivity Change across Voltage</b>	$\Delta S-VS$ , VCC=2.0V to 1.5V	-	-	<b>-3</b>	dB

## 5. ELECTRO-ACOUSTIC CHARACTERISTICS

Test Condition :  $23 \pm 2^\circ\text{C}$ , Room Humidity =  $55 \pm 20\%$ ,  $V_{CC}=2.0\text{V}$ , unless otherwise noticed.

Parameter	Conditions	Min	Typ	Max	Units
<b>Sensitivity (S)</b>	94dB SPL at 1kHz, $0\text{dB}=1\text{V}/\text{Pa}$	<b>-33</b>	<b>-30</b>	<b>-27</b>	dBV/Pa
<b>Output Impedance (<math>Z_{out}</math>)</b>	94dB SPL at 1kHz	-	-	<b>2.2</b>	$k\Omega$
<b>Current Consumption</b>	$V_{CC}=2.0\text{V}$ , $R_L = 2.2k\Omega$	-	-	<b>500</b>	$\mu\text{A}$
<b>Signal to Noise Ratio (SNR)</b>	94dB SPL at 1kHz, A-weighted	<b>66</b>	<b>68</b>	-	dB(A)
<b>Total Harmonic Distortion (THD)</b>	94dB SPL at 1kHz	-	-	<b>0.2</b>	%
	109dB SPL at 1kHz	-	-	<b>1.0</b>	
	111.5dB SPL at 1kHz	-	-	<b>3.0</b>	
	112.5dB SPL at 1kHz	-	-	<b>5.0</b>	
<b>Acoustic Overload Point (AOP)</b>	THD>10% at 1kHz	<b>115</b>	-	-	dB SPL

## 6. MEASUREMENT CIRCUIT



## 7. TYPICAL FREQUENCY RESPONSE CURVE(FAR FIELD)

### Far Field Measurement Condition

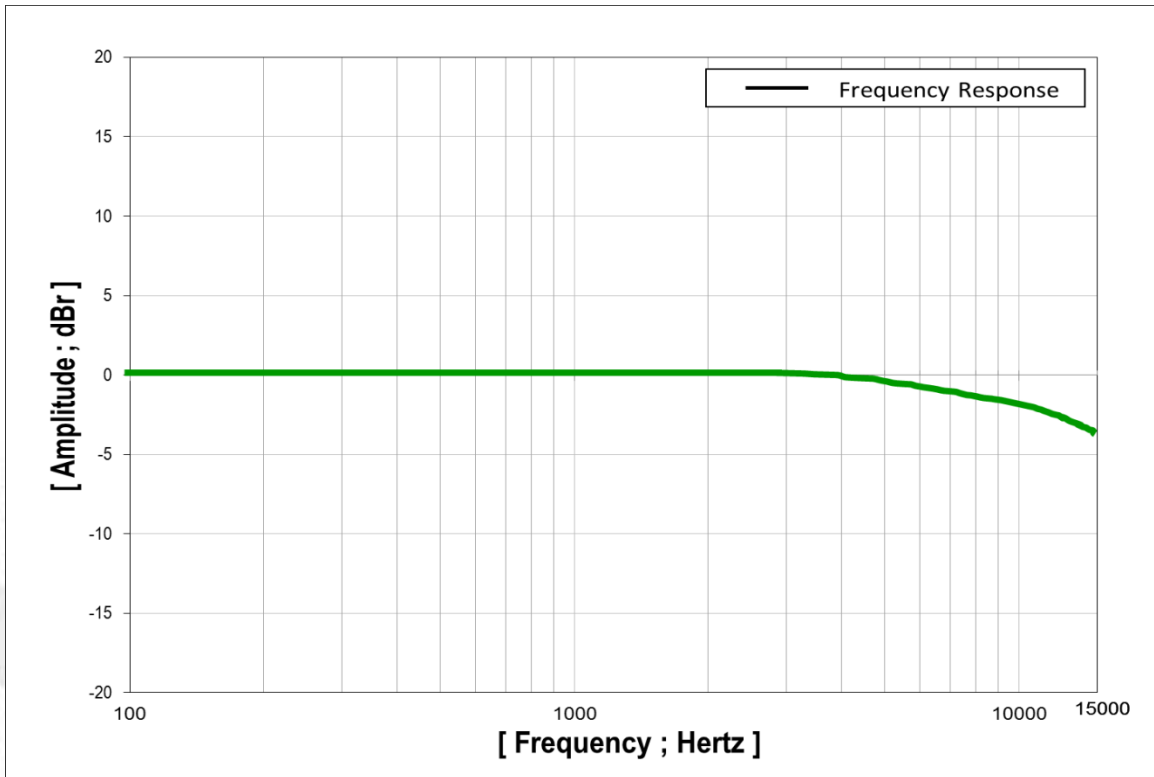
**Temperature :** 23 ± 2 °C

**Supply Voltage :** 2.0V

**Acoustic stimulus :** 1Pa ( 94dB SPL at 1kHz ) at 50 cm from the loud-speaker.

The loud-speaker must be calibrated to make a flat frequency response input signal.

**Position :** The frequency response of microphone unit measured at 50cm from the loud-speaker.



## 8. MECHANICAL CHARACTERISTICS

※ PCB design & Pin size can be changed by model No.

### ■ Pin Type

