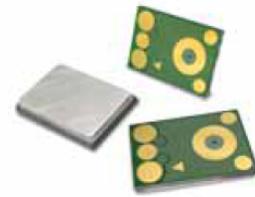


## Model

MO-C110T-K1	MO-C110R-K1
MO-B125T-K1	MO-B125R-K1
MOE-C110T-K1	MOE-C110R-K1
MOE-B125T-K1	MOE-B125R-K1



MOE-C110T42-K1



MOE-C110R38-K1

## Features

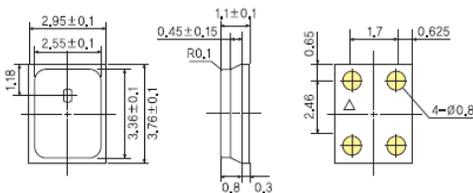
- Provide a stable electro-acoustic properties after reflow process
- Maintain superior reliability for high temperature
- Excellent Signal to Noise Ratio

## Specifications

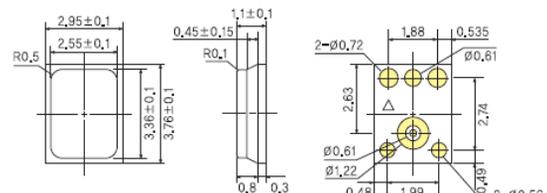
Parameter	Conditions	Limits			Units
		Min	Center	Max	
Sensitivity	$V_{DD}=2.0V$ , $f=1kHz$ , $S,P,L=1Pa$ , $0dB=1V/Pa$	-45	-42	-39	dB
Output impedance	$V_{DD}=2.0V$			300	$\Omega$
Current consumption	$V_{DD}=2.0V$	50		250	$\mu A$
Signal to Noise Ratio	A-weighting at 1kHz 1Pa	55	59		dB
Sensitivity Change across Voltage	$V_{DD}=1.5V \sim 3.6V$	No Change			dB
Operating Voltage		1.5	2.0	3.6	V
Total Harmonic Distortion	At 100dB SPL			1	%
	At 115dB SPL			10	%

Parameter	Conditions	Limits			Units
		Min	Center	Max	
Sensitivity	$V_{DD}=2.0V$ , $f=1kHz$ , $S,P,L=1Pa$ , $0dB=1V/Pa$	-41	-38	-35	dB
Output impedance	$V_{DD}=2.0V$			300	$\Omega$
Current consumption	$V_{DD}=2.0V$	50		250	$\mu A$
Signal to Noise Ratio	A-weighting at 1kHz 1Pa		62		dB
Sensitivity Change across Voltage	$V_{DD}=1.5V \sim 3.6V$	No Change			dB
Operating Voltage		1.5	2.0	3.6	V
Total Harmonic Distortion	At 100dB SPL			1	%
	At 115dB SPL			10	%

## Dimensions

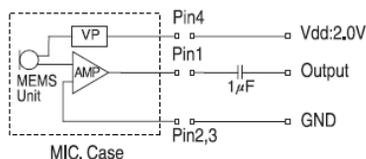


MOE-C110T42-K1

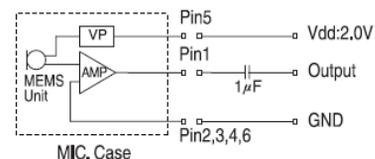


MOE-C110R38-K1

## Measurement Circuit

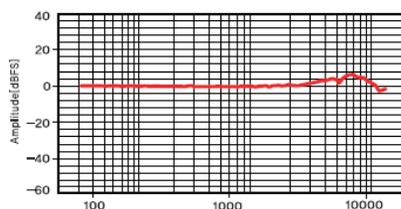


MOE-C110T42-K1

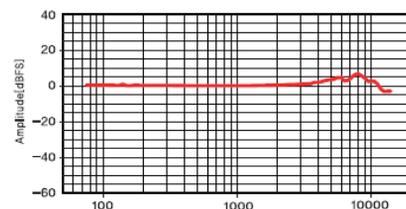


MOE-C110R38-K1

## Frequency Response



MOE-C110T42-K1



MOE-C110R38-K1

## デジタルMEMSマイクロホン

メーカー: BSE Co.,Ltd.(Korea)

## Model

DMO-B125T-CO100-6P

## Features

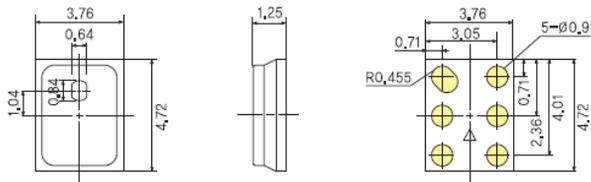
- Significant RF noise reduction for all applications (Especially GSM mobile condition)
- Excellent Signal to Noise Ratio
- High sensitivity & Extremely low distortion at high input level condition
- Maintain the high SNR and Low distortion after signal processing



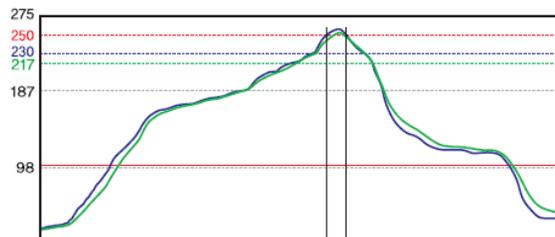
## Specifications

Parameter	Conditions	Min	Typ	Max	Units
Sensitivity	$f = 1\text{kHz}$ , S.P.L = 1Pa, $0\text{dB} = 1\text{V}/\text{Pa}$	-29	-26	-23	dBFS
Acoustic Overload Point	At THD = 10%			117	dB SPL
Current Consumption	$V_{DD} = 3.3\text{V}$ , Clock = 2,048MHz		750	1000	$\mu\text{A}$
Signal to Noise Ratio	$f = 1\text{kHz}$ , S.P.L = 1Pa (A-weighted Curve)	56			dB
Digital Noise Floor	A-weighted		-82		dBFS
Noise Floor (IRN)	A-weighted			38	dB SPL
Standby Current				10	$\mu\text{A}$
PSR	217Hz square wave with ripple signal			-65	dBFS

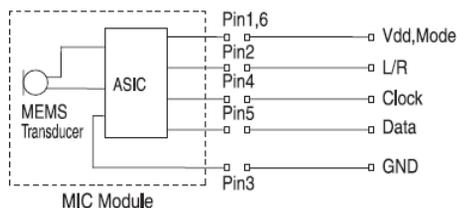
## Dimensions



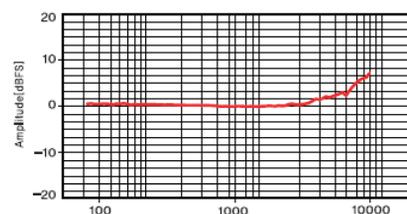
## Reflow Soldering Profile



## Measurement Circuit



## Frequency Response



## デジタルMEMSマイクロホン

メーカー: BSE Co.,Ltd.(Korea)

## Model

DMO-D100R-K1



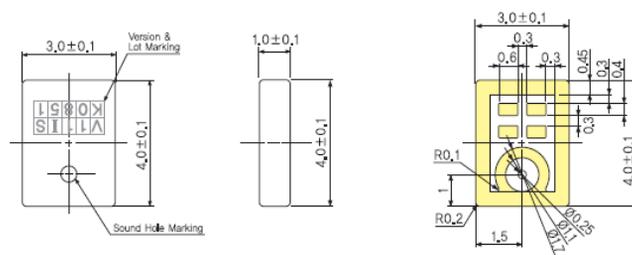
## Features

- Significant RF noise reduction for all applications (Especially GSM mobile condition)
- Excellent Signal to Noise Ratio
- High sensitivity & Extremely low distortion at high input level condition
- Maintain the high SNR and Low distortion after signal processing

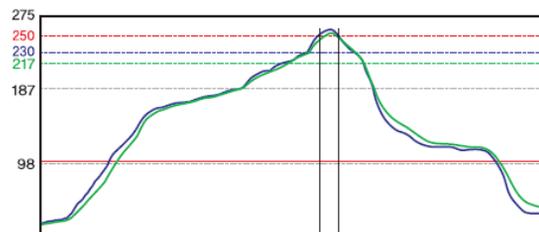
## Specifications

Parameter	Conditions	Min	Typ	Max	Units
Sensitivity	f = 1kHz, 1Pa (94dB SPL)	-29	-26	-23	dBFS
Acoustic Overload Point	THD < 10%	120			dB SPL
Signal to Noise Ratio	A-Weighted 1kHz 1Pa	60,5			dB (A)
Digital Noise Floor	Integrated, f = 100Hz to 8kHz, A-weighted		-86,5		dBFS
Analog Noise Floor				33,5	dB SPL
Supply Current	Normal operation		400	500	μA
PSR	Measured with 217Hz square wave and broad band noise, both 100mVpp			-70	dBFS
Short circuit current		1		10	mA

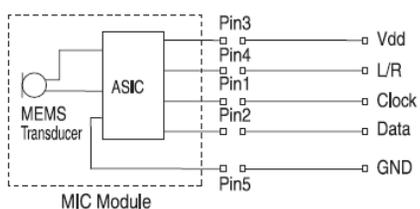
## Dimensions



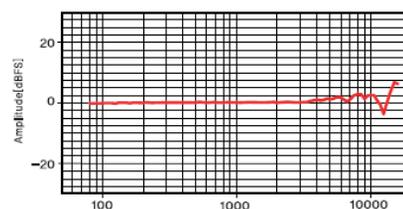
## Reflow Soldering Profile



## Measurement Circuit



## Frequency Response

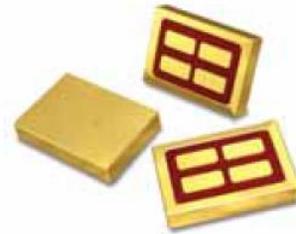


## デジタルSMDマイクロホン

メーカー: BSE Co.,Ltd. (Korea)

## Model

DSMO-431-5P-26  
(S)DSMO-431-5P-26



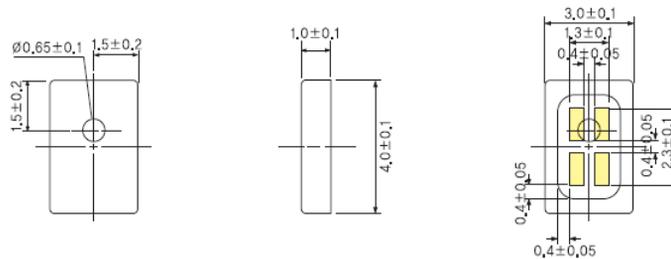
## Features

- Significant RF noise reduction for all applications (Especially GSM mobile condition)
- Excellent Signal to Noise Ratio
- High sensitivity & Extremely low distortion at high input level condition
- Maintain the high SNR and Low distortion after signal processing

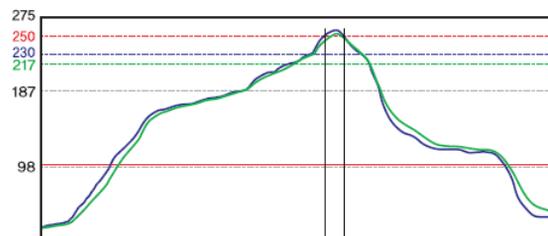
## Specifications

Parameter	Conditions	Min	Typ	Max	Units
Sensitivity	$f = 1\text{kHz}$ , 1Pa(94dB SPL)	-29	-26	-23	dBFS
Acoustic Overload Point	THD < 10%	120			dB SPL
Signal to Noise Ratio	$f = 1\text{kHz}$ , A-Weighted		60,5		dB
Digital Noise Floor	Integrated, $f = 100\text{Hz}$ to $8\text{kHz}$ , A-weighted		-86,5		dBFS
Analog Noise Floor				33,5	dB SPL
Supply Current	Normal operation		400	500	$\mu\text{A}$
PSR	Measured with 217Hz square wave and broadband noise, both 100mVpp			-70	dBFS
Short circuit current		1		10	mA

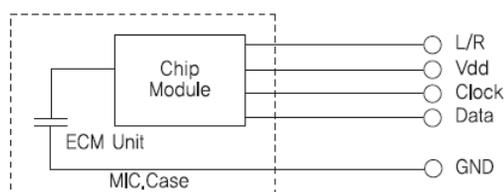
## Dimensions



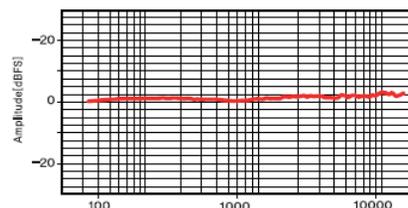
## Reflow Soldering Profile



## Measurement Circuit



## Frequency Response



## Model

SOB-312S SOB-313S  
 SOB-410S SOB-413S SOB-413R  
 SOB-15S



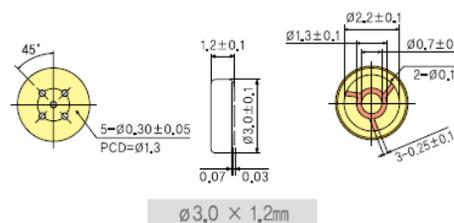
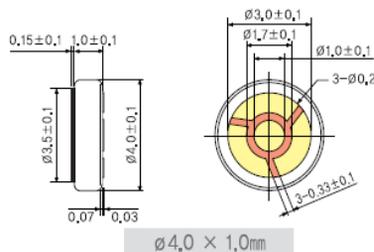
## Features

- Maintain superior reliability for high temperature
- Provide a stable sensitivity characteristics and consistent frequency response curve after reflow process.
- Integrate RF filtering Function.
- All materials are halogen free.

## Specifications

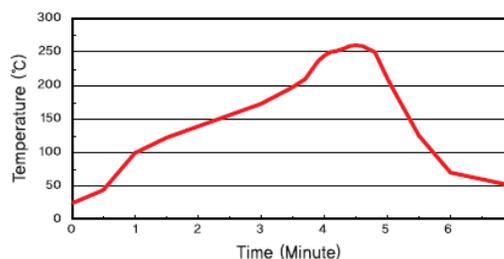
Parameter	Conditions	Typical value	Unit
Sensitivity	$f = 1\text{kHz}$ , $S,P,L = 1\text{Pa}$ , $0\text{dB} = 1\text{V/Pa}$ , $V_{DD} = 2.0\text{V}$	$-42+/-3$ , $-44+/-3$	dB
Output impedance	$f = 1\text{kHz}$	2.2	$\text{k}\Omega$
Current Consumption	$V_{DD} = 2.0\text{V}$ , $R_L = 2.2\text{k}\Omega$	300	$\mu\text{A}$
Signal to Noise Ratio	$f = 1\text{kHz}$ , $S,P,L = 1\text{Pa}$ (A-Weighted Curve)	$> 58$	dB
Decreasing Voltage	$V_{CC} = 2.0\text{V}$ to $1.5\text{V}$	- 3	dB

## Dimensions

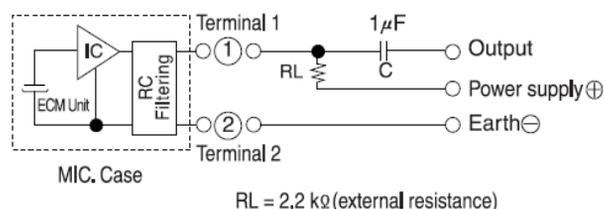


## Reflow Soldering Profile

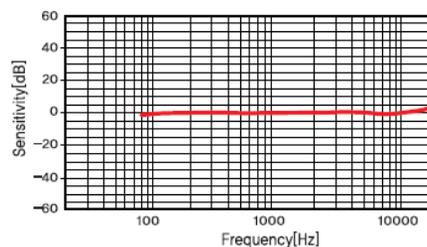
As illustrated in the graph of reflow profile, BSE SMD Microphone enables customers to proceed standardized SMT process with the conventional lead-free SMT conditions.



## Measurement Circuit



## Frequency Response



## Model

OBE-410L	OBE-412PA		
OBE-415L	OBE-415S	OBE-415PA	
OBE-22SA	OBE-27PH	OBE-45L	OBE-45P

## Features

- Functional integration for EMI filtering and ESD protection
- Significant RF noise reduction for GSM mobile phone
- Excellent filtering range over 47kHz

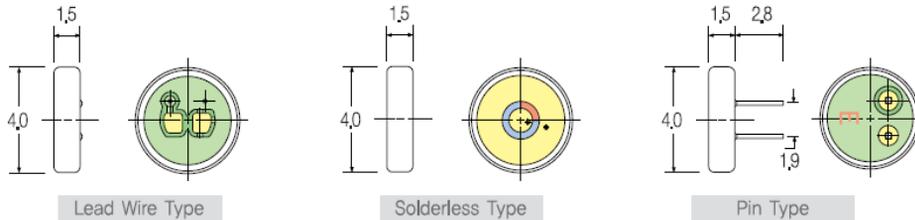


## Specifications

Sensitivity	See Model No. Table	Sensitivity reduction	Within-3dB at 1.5V
Impedance	Max. 2.2 k $\Omega$	S/N ratio	More than 58dB
Standard power supply	2.0 V DC	Directivity	Omnidirectional
Current consumption	Max. 0.5 mA		

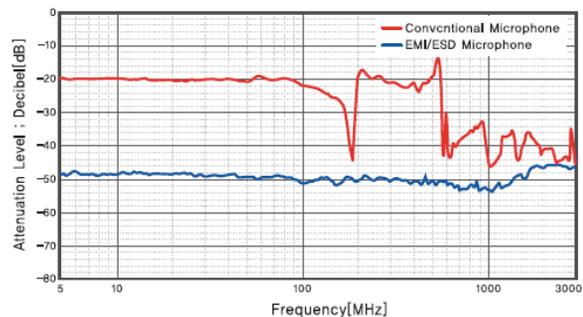
Sensitivity (0dB=1V/Pa at 1kHz)	Model No. Table					
	4×1,0	4×1,2	4×1,5	6×2,2	6×2,7	9×4,5
-46+-3dB	OBE-410L46	OBE-412PA46	OBE-415(L/PA/S)46	OBE-22SA46	OBE-27PH46	OBE-45P46
-44+-3dB	OBE-410L44	OBE-412PA44	OBE-415(L/PA/S)44	OBE-22SA44	OBE-27PH44	OBE-45P44

## Dimensions

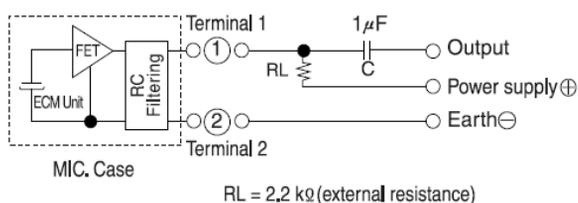


※Further drawings are shown at page 27.

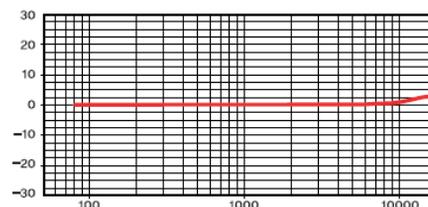
## RFI Characteristic Graph



## Measurement Circuit



## Frequency Response



## Model

OBM-311L  
OBM-410L  
OBM-415L



## Features

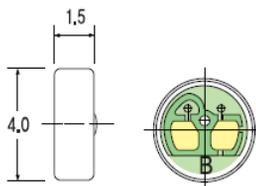
- Excellent Signal-to-Noise ratio (larger than 60dB).
- Application : Bluetooth Head-set, PDA, ear microphone, mobile products, etc.
- Function available Multi-PCB.
- Function available EMI/ESD.

## Specifications

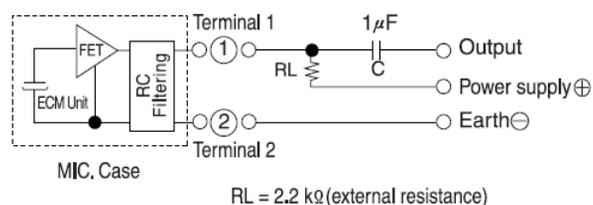
Parameter	Conditions	Typical value	Unit
Sensitivity	$f = 1\text{kHz}$ , S.P.L = 1Pa, 0dB = 1V/Pa, $V_{DD} = 2.0\text{V}$	See the table	dB
Output impedance	$f = 1\text{kHz}$	2.2	$\text{k}\Omega$
Current Consumption	$V_{CC} = 2.0\text{V}$ , $R_L = 2.2\text{k}\Omega$	300	$\mu\text{A}$
Signal to Noise Ratio	$f = 1\text{kHz}$ , S.P.L = 1Pa (A-Weighted Curve)	> 60	dB
Decreasing Voltage	$V_{CC} = 2.0\text{V}$ to 1.5V	- 3	dB

Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table		
	3×1,1	4×1,0	4×1,5
-46+/-3dB	OBM-311L46	OBM-410L46	OBM-415L46
-44+/-3dB	OBM-311L44	OBM-410L44	OBM-415L44
-42+/-3dB	OBM-311L42	OBM-410L42	OBM-415L42
-40+/-3dB	OBM-311L40	OBM-410L40	OBM-415L40
-38+/-3dB	OBM-311L38	OBM-410L38	OBM-415L38

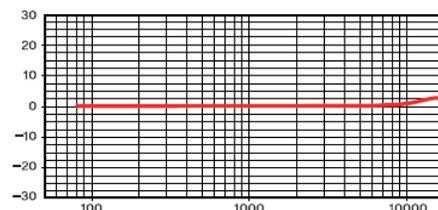
## Dimensions



## Measurement Circuit



## Frequency Response



## Model

OB-311L		
OB-410L	OB-412L	OB-412PA
OB-415L	OB-415PA	
OB-22L	OB-22P	OB-22S
OB-27L	OB-27P	
OB-45P	OB-45L	



Lead Wire Type



Solderless Type



Pin Type



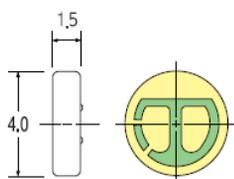
## Specifications

Sensitivity	See Model No. Table
Impedance	Max. 2,2 k $\Omega$
Standard power supply	2.0 V DC
Current consumption	Max. 0,5 mA

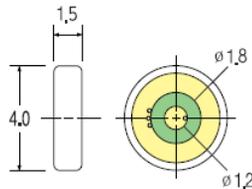
Sensitivity reduction	Within-3dB at 1,5V
S/N ratio	More than 58dB
Directivity	Omnidirectional

Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table						
	3×1,1	4×1,0	4×1,2	4×1,5	6×2,2	6×2,7	9×4,5
-46±-3dB	OB-311L46	OB-410L46	OB-412(L/PA)46	OB-415(L/P)46	OB-22(L/P/S)46	OB-27(L/P)46	OB-45(L/P)46
-44±-3dB	OB-311L44	OB-410L44	OB-412(L/PA)44	OB-415(L/P)44	OB-22(L/P/S)44	OB-27(L/P)44	OB-45(L/P)44
-42±-3dB	OB-311L42	OB-410L42	OB-412(L/PA)42	OB-415(L/P)42	OB-22(L/P/S)42	OB-27(L/P)42	OB-45(L/P)42
-40±-3dB	OB-311L40	OB-410L40	OB-412(L/PA)40	OB-415(L/P)40	OB-22(L/P/S)40	OB-27(L/P)40	OB-45(L/P)40
-38±-3dB	OB-311L38	OB-410L38	OB-412(L/PA)38	OB-415(L/P)38	OB-22(L/P/S)38	OB-27(L/P)38	OB-45(L/P)38

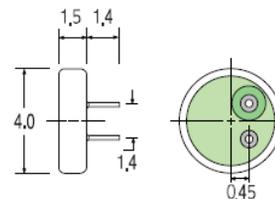
## Dimensions



Lead Wire Type



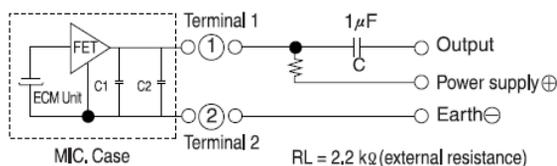
Solderless Type



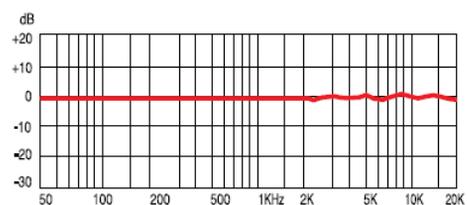
Pin Type

※Further drawings are shown at page 28,29.

## Measurement Circuit



## Frequency Response



## Model

BGO-410L	
BGO-415L	BGO-415PA
BGO-15L	BGO-15PA
BGO-27L	BGE-27PH



## Features

- High sensitivity ( $-27 \pm 3$ dB).
- Application : Camcorder phone, mobile phone, PDA, ear microphone, etc.
- Alternative gain can be set upon the request.
- Excellent Signal-to-Noise ratio. (larger than 60dB)

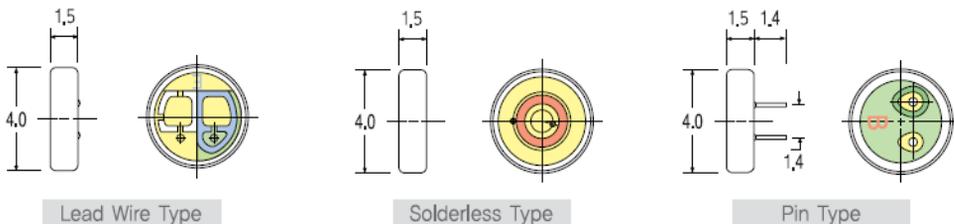
## Specifications

Sensitivity	See Model No. Table
Impedance	Max. 2,2 k $\Omega$
Standard power supply	2,0 V DC
Current consumption	Max. 0,3 mA

Sensitivity reduction	Within $-3$ dB at 1,5V
S/N ratio	More than 60dB
Directivity	Omnidirectional

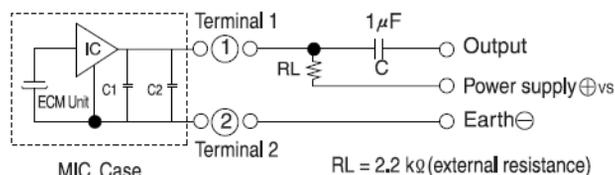
Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table			
	4×1,0	4×1,5	6×1,5	6×2,7
-38±3dB	BGO-410L38	BGO-415(L/PA)38	BGO-15(L/PA)38	BGO-27(L/PH)38
-35±3dB	BGO-410L35	BGO-415(L/PA)35	BGO-15(L/PA)35	BGO-27(L/PH)35
-33±3dB	BGO-410L33	BGO-415(L/PA)33	BGO-15(L/PA)33	BGO-27(L/PH)33
-30±3dB	BGO-410L30	BGO-415(L/PA)30	BGO-15(L/PA)30	BGO-27(L/PH)30
-27±3dB			BGO-15(L/PA)27	BGO-27(L/PH)27

## Dimensions

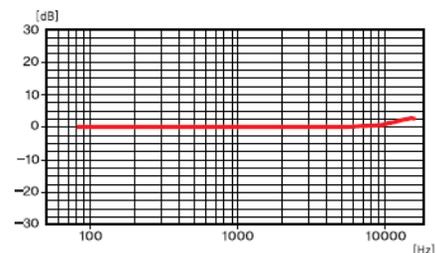


※Further drawings are shown at page 27,28.

## Measurement Circuit



## Frequency Response



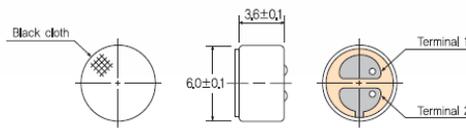
## OFマイクロホン(φ6\*3.6t/φ9.7\*4.5t)

メーカー: BSE Co.,Ltd. (Korea)

## Model

CMS-58 ~ 70

## Dimensions



Lead Wire Type CMS-60



## Specifications

Sensitivity	See Model No. Table
Impedance	Max, 2.2 kΩ
Standard power supply	2.0 V DC
Current consumption	Max, 0.5 mA
Sensitivity reduction	Within-3dB at 1.5V
S/N ratio	More than 58dB
Directivity	Omnidirectional

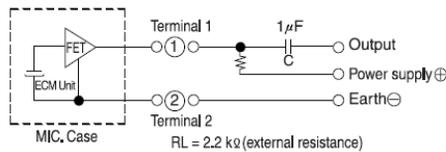
Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table
-50 ± 3dB	CMS-70
-48 ± 3dB	CMS-68
-46 ± 3dB	CMS-66
-44 ± 3dB	CMS-64
-42 ± 3dB	CMS-62
-40 ± 3dB	CMS-60
-38 ± 3dB	CMS-58

## Specifications

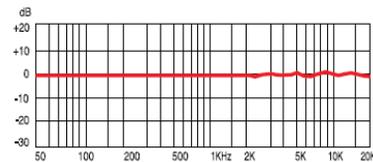
Sensitivity	See Model No. Table
Impedance	Max, 2.2 kΩ
Standard power supply	2.0 V DC
Current consumption	Max, 0.5 mA
Sensitivity reduction	Within-3dB at 1.5V
S/N ratio	More than 58dB
Directivity	Omnidirectional

Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table
-50 ± 3dB	CMS-70
-48 ± 3dB	CMS-68
-46 ± 3dB	CMS-66
-44 ± 3dB	CMS-64
-42 ± 3dB	CMS-62
-40 ± 3dB	CMS-60
-38 ± 3dB	CMS-58

## Measurement Circuit



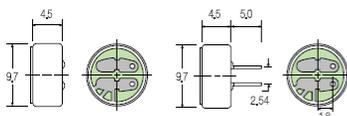
## Frequency Response



## Model

CMT-4536 ~ 4546  
CMT-45H40 ~ 45H50CMP-4536 ~ 4546  
CMP-45H40 ~ 45H50

## Dimensions



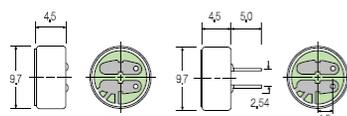
Lead Wire Type CMT-45

Pin Type CMP-45

## Specifications

Sensitivity	See Model No. Table
Impedance	Max, 2.2 kΩ
Standard power supply	2.0 V DC
Current consumption	Max, 0.5 mA
Sensitivity reduction	Within-3dB at 1.5V
S/N ratio	More than 58dB
Directivity	Omnidirectional

Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table	
	Lead Wire Type	Pin Type
-46 ± 2dB	CMT-4546	CMP-4546
-44 ± 2dB	CMT-4544	CMP-4544
-42 ± 2dB	CMT-4542	CMP-4542
-40 ± 2dB	CMT-4540	CMP-4540
-38 ± 2dB	CMT-4538	CMP-4538
-36 ± 2dB	CMT-4536	CMP-4536



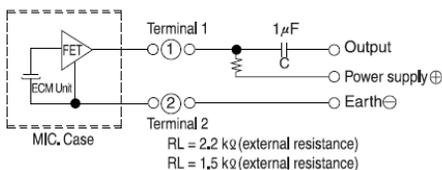
Lead Wire Type CMT-45H

Pin Type CMP-45H

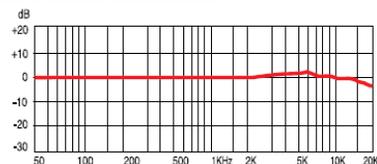
Sensitivity	See Model No. Table
Impedance	Max, 1.5 kΩ
Standard power supply	1.5 V DC
Current consumption	Max, 0.5 mA
Sensitivity reduction	Within-3dB at 1.0V
S/N ratio	More than 60dB
Directivity	Omnidirectional

Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table	
	Lead Wire Type	Pin Type
-50 ± 2dB	CMT-45H50	CMP-45H50
-48 ± 2dB	CMT-45H48	CMP-45H48
-46 ± 2dB	CMT-45H46	CMP-45H46
-44 ± 2dB	CMT-45H44	CMP-45H44
-42 ± 2dB	CMT-45H42	CMP-45H42
-40 ± 2dB	CMT-45H40	CMP-45H40

## Measurement Circuit



## Frequency Response



## OFマイクロホン(φ9.7\*6.5t/φ9.7\*5.0t)

メーカー: BSE Co.,Ltd.(Korea)

## Model

CMT-756 ~ 766	CMT-5036 ~ 5046
CMP-756 ~ 766	CMP-5036 ~ 5046
CMT-7H58 ~ 7H70	
CMP-7H58 ~ 7H70	



## Specifications

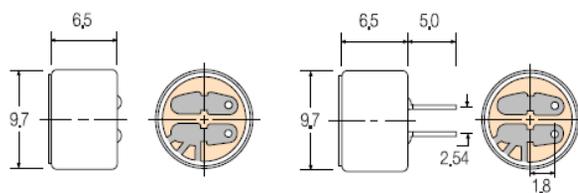
Sensitivity	See Model No. Table
Impedance	Max, 2,2 kΩ
Standard power supply	4,5 V DC
Current consumption	Max, 0,8 mA
Sensitivity reduction	Within-3dB at 3,0V
S/N ratio	More than 60dB
Directivity	Omnidirectional

Sensitivity	See Model No. Table
Impedance	Max, 1,5 kΩ
Standard power supply	1,5 V DC
Current consumption	Max, 0,5 mA
Sensitivity reduction	Within-3dB at 1,0V
S/N ratio	More than 60dB
Directivity	Omnidirectional

Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table	
	Lead Wire Type	Pin Type
-46 ± 2dB	CMT-766	CMP-766
-44 ± 2dB	CMT-764	CMP-764
-42 ± 2dB	CMT-762	CMP-762
-40 ± 2dB	CMT-760	CMP-760
-38 ± 2dB	CMT-758	CMP-758
-36 ± 2dB	CMT-756	CMP-756

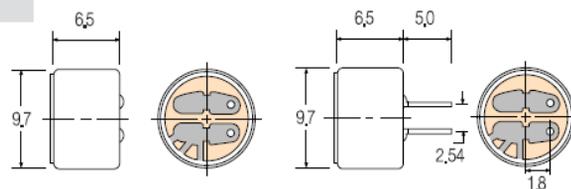
Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table	
	Lead Wire Type	Pin Type
-50 ± 2dB	CMT-7H70	CMP-7H70
-48 ± 2dB	CMT-7H68	CMP-7H68
-46 ± 2dB	CMT-7H66	CMP-7H66
-44 ± 2dB	CMT-7H64	CMP-7H64
-42 ± 2dB	CMT-7H62	CMP-7H62
-40 ± 2dB	CMT-7H60	CMP-7H60
-38 ± 2dB	CMT-7H58	CMP-7H58

## Dimensions



Lead Wire Type CMT-7

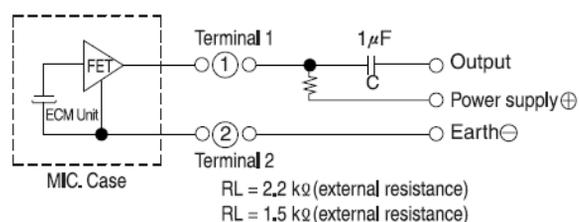
Pin Type CMP-7



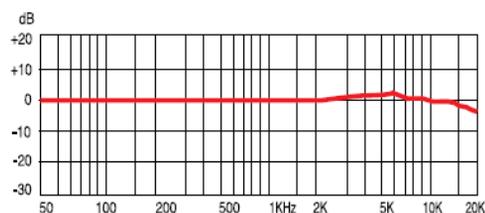
Lead Wire Type CMT-7H

Pin Type CMP-7H

## Measurement Circuit



## Frequency Response



## OFマイクロホン(φ9.4\*6.5t)

メーカー: BSE Co.,Ltd.(Korea)

## Model

CMT-58 ~ 70      CMP-58 ~ 70  
 CMT-58H ~ 68H    CMP-58H ~ 68H



## Specifications

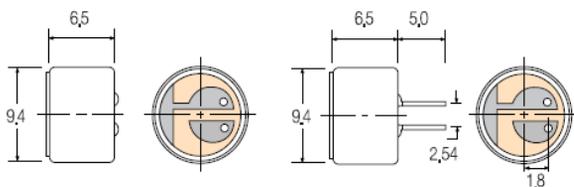
Sensitivity	See Model No. Table
Impedance	Max. 1.0 kΩ
Standard power supply	4.5 V DC
Current consumption	Max. 0.8 mA
Sensitivity reduction	Within-3dB at 3.0V
S/N ratio	More than 60dB
Directivity	Omnidirectional

Sensitivity	See Model No. Table
Impedance	Max. 1.0 kΩ
Standard power supply	1.5 V DC
Current consumption	Max. 0.5 mA
Sensitivity reduction	Within-3dB at 1.0V
S/N ratio	More than 60dB
Directivity	Omnidirectional

Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table	
	Lead Wire Type	Pin Type
-50 ± 2dB	CMT-70	CMP-70
-48 ± 2dB	CMT-68	CMP-68
-46 ± 2dB	CMT-66	CMP-66
-44 ± 2dB	CMT-64	CMP-64
-42 ± 2dB	CMT-62	CMP-62
-40 ± 2dB	CMT-60	CMP-60
-38 ± 2dB	CMT-58	CMP-58

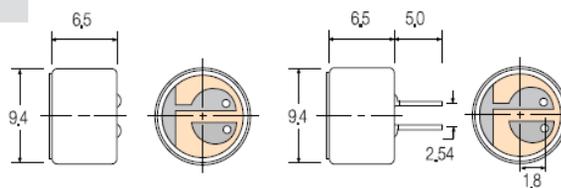
Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table	
	Lead Wire Type	Pin Type
-50 ± 2dB	CMT-70H	CMP-70H
-48 ± 2dB	CMT-68H	CMP-68H
-46 ± 2dB	CMT-66H	CMP-66H
-44 ± 2dB	CMT-64H	CMP-64H
-42 ± 2dB	CMT-62H	CMP-62H
-40 ± 2dB	CMT-60H	CMP-60H
-38 ± 2dB	CMT-58H	CMP-58H

## Dimensions



Lead Wire Type CMT

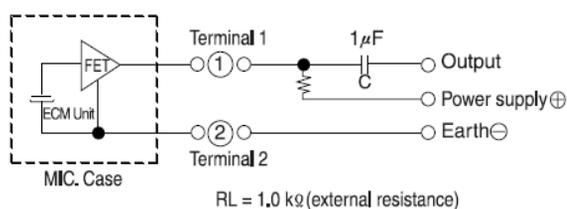
Pin Type CMP



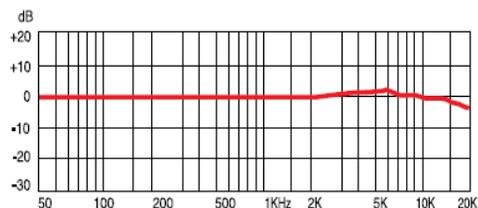
Lead Wire Type CMT-H

Pin Type CMP-H

## Measurement Circuit



## Frequency Response



## Model

UB-45L-RC33

UB-45L

UB-22L



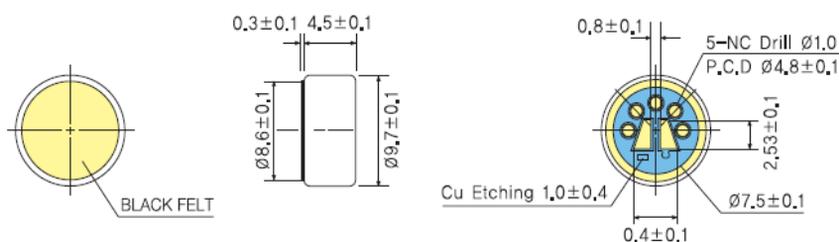
## Features

- Provide High sensitivity and flat frequency response (compare other directional microphone)
- Provide highly stable directional pattern and frequency response
- Excellent Signal to Noise Ratio (Over 70 dB)

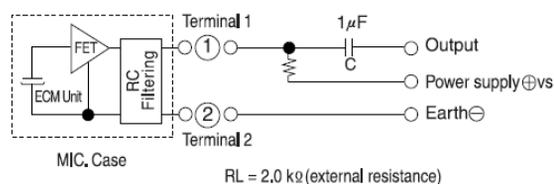
## Specifications

Parameter	Conditions	Limits			Units
		Min	Center	Max	
Sensitivity	$f = 1\text{kHz}$ , S.P.L = 1Pa, 0dB = 1V/Pa	-40	-37	-34	dB
Output impedance	$f = 1\text{kHz}$			2.0	K $\Omega$
Current Consumption	$V_{CC} = 1.5\text{V}$ , $R_L = 2.0\text{K}\Omega$			500	$\mu\text{A}$
Signal to Noise Ratio	$f = 1\text{kHz}$ , S.P.L = 1Pa (A-Weighted Curve)	70			dB
Decreasing Voltage	$V_{CC} = 1.5\text{V}$ to 1.0V			-3	dB
Operating Voltage		1		10	V
Maximum input S.P.L.				110	dB
Front to Rear Ratio	$f = 1\text{kHz}$	15			dB

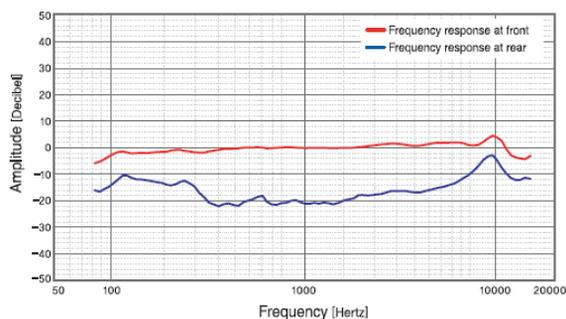
## Dimensions



## Measurement Circuit



## Frequency Response



## NBマイクロホン(ノイズキャンセリング)

メーカー: BSE Co.,Ltd. (Korea)

## Model

NB-22L

NB-27L

NB-45L

Lead Wire  
TypeLead Wire  
TypeLead Wire  
Type

## Specifications

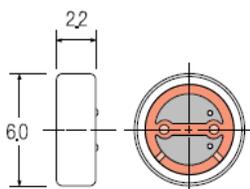
Sensitivity	See Model No. Table
Impedance	Max. 2.2 k $\Omega$
Standard power supply	2.0 V DC
Current consumption	Max. 0.5 mA
Sensitivity reduction	Within-3dB at 1.5V
S/N ratio	More than 50dB
Directivity	Omnidirectional

Sensitivity	See Model No. Table
Impedance	Max. 680 $\Omega$
Standard power supply	1.5 V DC
Current consumption	Max. 0.5 mA
Sensitivity reduction	Within-3dB at 1.0V
S/N ratio	More than 50dB
Directivity	Bidirectional

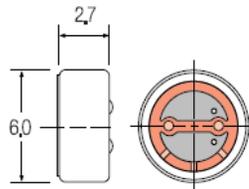
Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table	
	6 $\times$ 2.2	6 $\times$ 2.7
-51 $\pm$ 4dB	NB-22L51	NB-27L51
-47 $\pm$ 4dB	NB-22L47	NB-27L47

Sensitivity (0dB=1V/Pa at 1KHz)	Model No. Table
	9.7 $\times$ 4.5
-51 $\pm$ 4dB	NB-45L51
-47 $\pm$ 4dB	NB-45L47

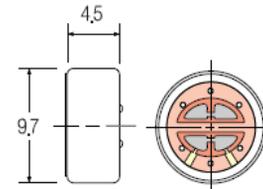
## Dimensions



Lead Wire Type NB-22L

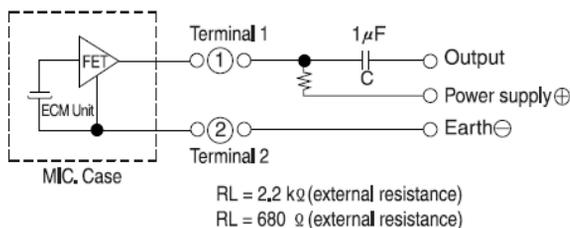


Lead Wire Type NB-27L



Lead Wire Type NB-45L

## Measurement Circuit



## Frequency Response

