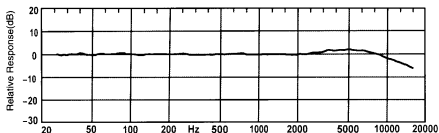


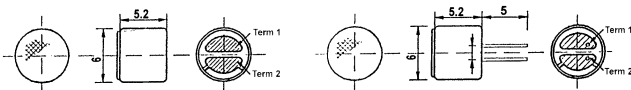
**V<sub>s</sub>=3V, R<sub>L</sub>=2.2K Ω**

|  |                      |           |
|--|----------------------|-----------|
| <b>Item No.:</b>                         | <b>CM6052BD (-P)</b> |           |
| <b>Sensitivity:</b><br>(OdB=1V/Pa,1KHz)  | -46 ± 3dB            | -44 ± 3dB |
|  | -42 ± 3dB            |           |
| <b>Impedance:</b>                        | Low impedance        |           |
| <b>Directivity:</b>                      | Omnidirectional      |           |
| <b>Frequency:</b>                        | 30 - 20,000Hz        |           |
| <b>Operation Voltage:</b><br>(Max./Std.) | 10V/3V               |           |
| <b>Resistance (R<sub>L</sub>):</b>       | 2.2KΩ                |           |
| <b>Current Consumption:</b>              | Max. 0.5mA           |           |
| <b>S/N Ratio:</b>                        | More than 58dB       |           |

■ Typical Frequency Response Curve



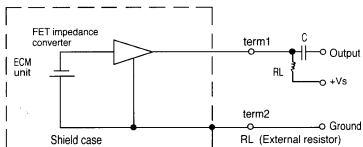
■ Dimensional Drawing (Unit:mm)



CM6052BD

CM6052BD-P

■ Schematic Diagram

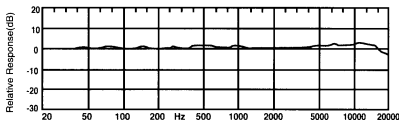


**ote:** The relation between "Pascal" and " bar" is as follow: 1Pa=10/ bar, So the sensitivity will increase 20dB with " Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)

**Vs=4.5V, RL=1KΩ**

|   |                      |                |                |
|---|----------------------|----------------|----------------|
| <b>Item No.:</b>                                  | <b>CM9466CB (-P)</b> |                |                |
| <b>Sensitivity:</b><br>( <b>OdB=1V/Pa,1KHz</b> )  | -48dB<br>-42dB       | -46dB<br>-40dB | -44dB<br>-38dB |
| <b>Impedance:</b>                                 | Low impedance        |                |                |
| <b>Directivity:</b>                               | Omnidirectional      |                |                |
| <b>Frequency:</b>                                 | 30 - 16,000Hz        |                |                |
| <b>Operation Voltage:</b><br>( <b>Max./Std.</b> ) | 10V/4.5V             |                |                |
| <b>Resistance (RL):</b>                           | 1KΩ                  |                |                |
| <b>Current Consumption:</b>                       | Max. 0.8mA           |                |                |
| <b>S/N Ratio:</b>                                 | More than 60dB       |                |                |

▪ Typical Frequency Response Curve



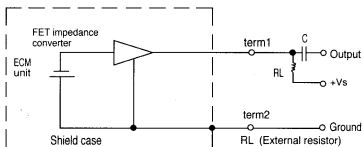
▪ Dimensional Drawing (Unit:mm)



CM9466CB

CM9466CB-P

▪ Schematic Diagram

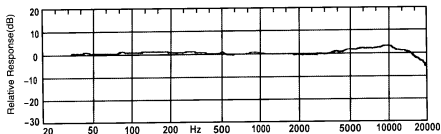


**Note:** The relation between "Pascal" and "bar" is as follow:  $1\text{Pa}=10^{-5}\text{bar}$ , So the sensitivity will increase 20dB with "Pa" indication. Example:  $-60\text{dB}(\text{OdB}=1\text{V}/\text{bar})=-40\text{dB}(\text{OdB}=1\text{V}/\text{Pa})$

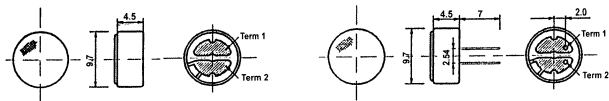
**Vs=1.5V, RL=3KΩ**

|  |   |
|--|---|
| <b>Item No.:</b>                               | <b>CM9745AE (-P)</b>                      |
| <b>Sensitivity:</b><br><b>OdB=1V/Pa,1KHz)</b>  | -46dB    -44dB    -42dB<br>-40dB    -38dB |
| <b>Impedance:</b>                              | Low impedance                             |
| <b>Directivity:</b>                            | Omnidirectional                           |
| <b>Frequency:</b>                              | 30 - 16,000Hz                             |
| <b>Operation Voltage:</b><br><b>Max./Std.)</b> | 10V/1.5V                                  |
| <b>Resistance (RL):</b>                        | 3KΩ                                       |
| <b>Current Consumption:</b>                    | Max. 0.3mA                                |
| <b>S/N Ratio:</b>                              | More than 60dB                            |

■ Typical Frequency Response Curve



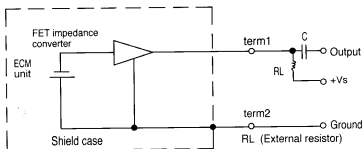
■ Dimensional Drawing (Unit:mm)



CM9745AE

CM9745AE-P

■ Schematic Diagram

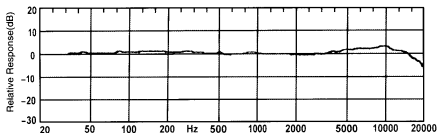


**Note:** The relation between "Pascal" and "bar" is as follow: 1Pa=10/ bar, So the sensitivity will increase 20dB with "Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)

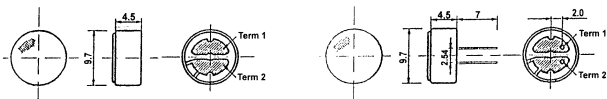
**V<sub>s</sub>=3V, R<sub>L</sub>=2.2K $\Omega$**

|  |                      |                |                |
|--|----------------------|----------------|----------------|
| <b>Item No.:</b>                         | <b>CM9745BD (-P)</b> |                |                |
| <b>Sensitivity:</b><br>(OdB=1V/Pa,1KHz)  | -46dB<br>-40dB       | -44dB<br>-38dB | -42dB<br>-36dB |
| <b>Impedance:</b>                        | Low impedance        |                |                |
| <b>Directivity:</b>                      | Omnidirectional      |                |                |
| <b>Frequency:</b>                        | 30 - 16,000Hz        |                |                |
| <b>Operation Voltage:</b><br>(Max./Std.) | 10V/3V               |                |                |
| <b>Resistance (R<sub>L</sub>):</b>       | 2.2K $\Omega$        |                |                |
| <b>Current Consumption:</b>              | Max. 0.6mA           |                |                |
| <b>S/N Ratio:</b>                        | More than 60dB       |                |                |

▪ Typical Frequency Response Curve



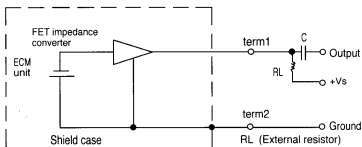
▪ Dimensional Drawing (Unit:mm)



CM9745BD

CM9745BD-P

▪ Schematic Diagram

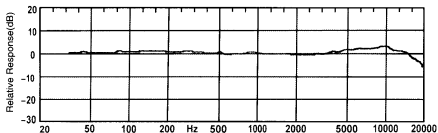


**Note:** The relation between "Pascal" and "bar" is as follow: 1Pa=10<sup>-5</sup> bar, So the sensitivity will increase 20dB with "Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)

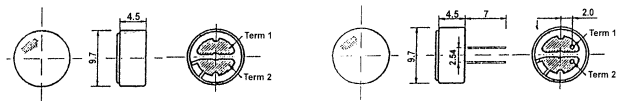
**V<sub>s</sub>=4.5V, R<sub>L</sub>=1K $\Omega$**

|  |                      |                |                |
|--|----------------------|----------------|----------------|
| <b>Item No.:</b>                         | <b>CM9745CB (-P)</b> |                |                |
| <b>Sensitivity:</b><br>(OdB=1V/Pa,1KHz)  | -48dB<br>-42dB       | -46dB<br>-40dB | -44dB<br>-38dB |
| <b>Impedance:</b>                        | Low impedance        |                |                |
| <b>Directivity:</b>                      | Omnidirectional      |                |                |
| <b>Frequency:</b>                        | 30 - 16,000Hz        |                |                |
| <b>Operation Voltage:</b><br>(Max./Std.) | 10V/4.5V             |                |                |
| <b>Resistance (R<sub>L</sub>):</b>       | 1K $\Omega$          |                |                |
| <b>Current Consumption:</b>              | Max. 0.8mA           |                |                |
| <b>S/N Ratio:</b>                        | More than 60dB       |                |                |

▪ Typical Frequency Response Curve



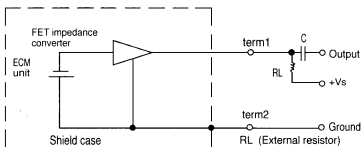
▪ Dimensional Drawing (Unit:mm)



CM9745CB

CM9745CB-P

▪ Schematic Diagram

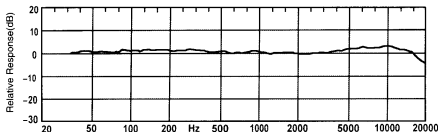


**Note:** The relation between "Pascal" and "bar" is as follow: 1Pa=10<sup>-5</sup> bar, So the sensitivity will increase 20dB with "Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)

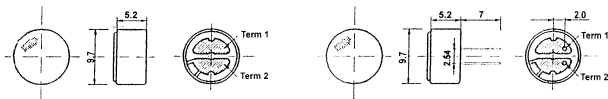
**Vs=3V, RL=2.2KΩ**

|  |                      |                |                |
|--|----------------------|----------------|----------------|
| <b>Item No.:</b>                         | <b>CM9752BD (-P)</b> |                |                |
| <b>Sensitivity:</b><br>(OdB=1V/Pa,1KHz)  | -46dB<br>-40dB       | -44dB<br>-38dB | -42dB<br>-36dB |
| <b>Impedance:</b>                        | Low impedance        |                |                |
| <b>Directivity:</b>                      | Omnidirectional      |                |                |
| <b>Frequency:</b>                        | 30 - 16,000Hz        |                |                |
| <b>Operation Voltage:</b><br>(Max./Std.) | 10V/3V               |                |                |
| <b>Resistance (RL):</b>                  | 2.2KΩ                |                |                |
| <b>Current Consumption:</b>              | Max. 0.5mA           |                |                |
| <b>S/N Ratio:</b>                        | More than 60dB       |                |                |

■ Typical Frequency Response Curve



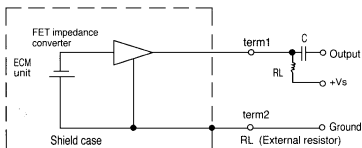
■ Dimensional Drawing (Unit:mm)



CM9752BD

CM9752BD-P

■ Schematic Diagram

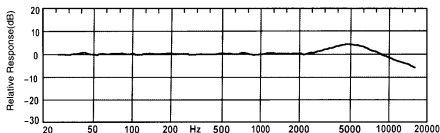


**ote:** The relation between "Pascal" and " bar" is as follow: 1Pa=10/ bar, So the sensitivity will increase 20dB with " Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)

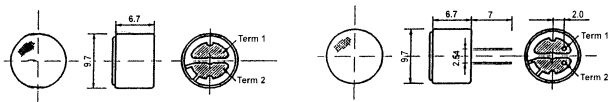
**Vs=1.5V, RL=1.5KΩ**

|   |                      |       |       |
|---|----------------------|-------|-------|
| <b>Item No.:</b>                                | <b>CM9767AC (-P)</b> |       |       |
| <b>Sensitivity:</b><br><b>(OdB=1V/Pa,1KHz)</b>  | -46dB                | -44dB | -42dB |
|   | -40dB                | -38dB | -36dB |
| <b>Impedance:</b>                               | Low impedance        |       |       |
| <b>Directivity:</b>                             | Omnidirectional      |       |       |
| <b>Frequency:</b>                               | 30 - 16,000Hz        |       |       |
| <b>Operation Voltage:</b><br><b>(Max./Std.)</b> | 10V/1.5V             |       |       |
| <b>Resistance (RL):</b>                         | 1.5KΩ                |       |       |
| <b>Current Consumption:</b>                     | Max. 0.3mA           |       |       |
| <b>S/N Ratio:</b>                               | More than 60dB       |       |       |

▪ Typical Frequency Response Curve



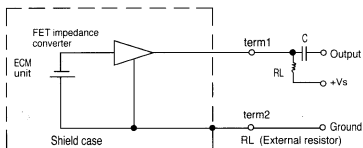
▪ Dimensional Drawing (Unit:mm)



CM9767AC

CM9767AC-P

▪ Schematic Diagram

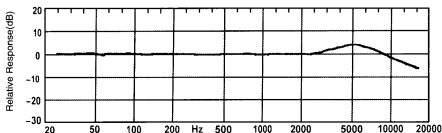


**Note:** The relation between "Pascal" and "bar" is as follow:  $1Pa=10^{-5} \text{ bar}$ , So the sensitivity will increase 20dB with "Pa" indication. Example:  $-60dB(OdB=1V/\text{bar})=-40dB(OdB=1V/Pa)$

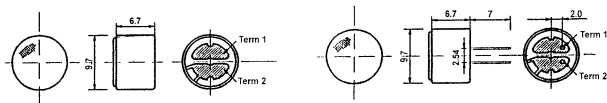
**Vs=3V, RL=2.2KΩ**

|  |                      |                |                |
|--|----------------------|----------------|----------------|
| <b>Item No.:</b>                         | <b>CM9767BD (-P)</b> |                |                |
| <b>Sensitivity:</b><br>(OdB=1V/Pa,1KHz)  | -46dB<br>-40dB       | -44dB<br>-38dB | -42dB<br>-36dB |
| <b>Impedance:</b>                        | Low impedance        |                |                |
| <b>Directivity:</b>                      | Omnidirectional      |                |                |
| <b>Frequency:</b>                        | 30 - 16,000Hz        |                |                |
| <b>Operation Voltage:</b><br>(Max./Std.) | 10V/3V               |                |                |
| <b>Resistance (RL):</b>                  | 2.2KΩ                |                |                |
| <b>Current Consumption:</b>              | Max. 0.5mA           |                |                |
| <b>S/N Ratio:</b>                        | More than 60dB       |                |                |

▪ Typical Frequency Response Curve



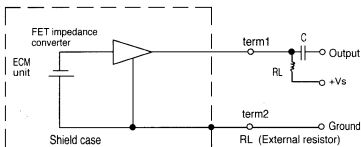
▪ Dimensional Drawing (Unit:mm)



CM9767BD

CM9767BD-P

▪ Schematic Diagram



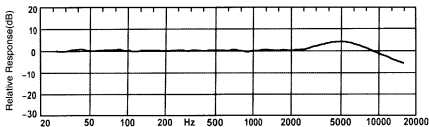
**Note:** The relation between "Pascal" and "bar" is as follow: 1Pa=10<sup>-5</sup> bar, So the sensitivity will increase 20dB with "Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)



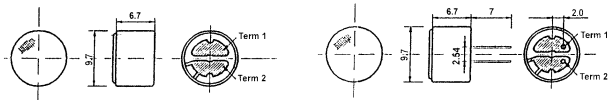
**Vs=4.5V, RL=1KΩ**

|   |                      |       |       |
|---|----------------------|-------|-------|
| <b>Item No.:</b>                                | <b>CM9767CB (-P)</b> |       |       |
| <b>Sensitivity:</b><br><b>(0dB=1V/Pa,1KHz)</b>  | -48dB                | -46dB | -44dB |
|   | -42dB                | -40dB | -38dB |
| <b>Impedance:</b>                               | Low impedance        |       |       |
| <b>Directivity:</b>                             | Omnidirectional      |       |       |
| <b>Frequency:</b>                               | 30 - 16,000Hz        |       |       |
| <b>Operation Voltage:</b><br><b>(Max./Std.)</b> | 10V/4.5V             |       |       |
| <b>Resistance (RL):</b>                         | 1KΩ                  |       |       |
| <b>Current Consumption:</b>                     | Max. 0.8mA           |       |       |
| <b>S/N Ratio:</b>                               | More than 60dB       |       |       |

■ Typical Frequency Response Curve



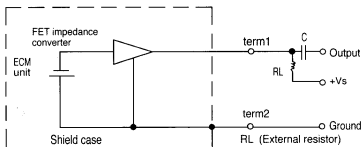
■ Dimensional Drawing (Unit:mm)



CM9767CB

CM9767CB-P

■ Schematic Diagram

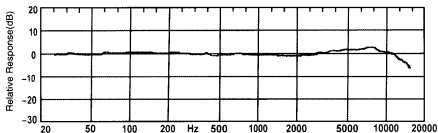


**Note:** The relation between "Pascal" and "bar" is as follow: 1Pa=10<sup>-5</sup> bar, So the sensitivity will increase 20dB with "Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)

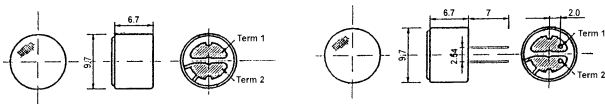
**Vs=4.5V, RL=2.2KΩ**

|  |                      |                |                |
|--|----------------------|----------------|----------------|
| <b>Item No.:</b>                         | <b>CM9767CD (-P)</b> |                |                |
| <b>Sensitivity:</b><br>(0dB=1V/Pa,1KHz)  | -46dB<br>-40dB       | -44dB<br>-38dB | -42dB<br>-36dB |
| <b>Impedance:</b>                        | Low impedance        |                |                |
| <b>Directivity:</b>                      | Omnidirectional      |                |                |
| <b>Frequency:</b>                        | 30 - 16,000Hz        |                |                |
| <b>Operation Voltage:</b><br>(Max./Std.) | 10V/4.5V             |                |                |
| <b>Resistance (RL):</b>                  | 2.2KΩ                |                |                |
| <b>Current Consumption:</b>              | Max. 0.8mA           |                |                |
| <b>S/N Ratio:</b>                        | More than 60dB       |                |                |

▪ Typical Frequency Response Curve



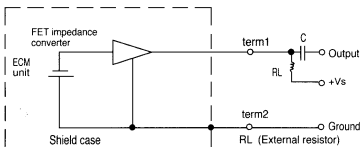
▪ Dimensional Drawing (Unit:mm)



CM9767CD

CM9767CD-P

▪ Schematic Diagram

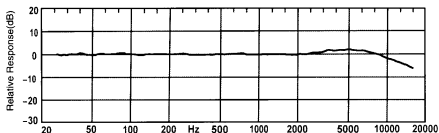


**Note:** The relation between "Pascal" and "bar" is as follow: 1Pa=10<sup>-5</sup> bar, So the sensitivity will increase 20dB with "Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)

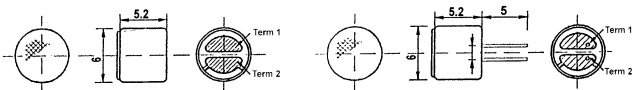
**V<sub>s</sub>=3V, R<sub>L</sub>=2.2K Ω**

|  |                      |           |
|--|----------------------|-----------|
| <b>Item No.:</b>                         | <b>CM6052BD (-P)</b> |           |
| <b>Sensitivity:</b><br>(OdB=1V/Pa,1KHz)  | -46 ± 3dB            | -44 ± 3dB |
|  | -42 ± 3dB            |           |
| <b>Impedance:</b>                        | Low impedance        |           |
| <b>Directivity:</b>                      | Omnidirectional      |           |
| <b>Frequency:</b>                        | 30 - 20,000Hz        |           |
| <b>Operation Voltage:</b><br>(Max./Std.) | 10V/3V               |           |
| <b>Resistance (R<sub>L</sub>):</b>       | 2.2KΩ                |           |
| <b>Current Consumption:</b>              | Max. 0.5mA           |           |
| <b>S/N Ratio:</b>                        | More than 58dB       |           |

▪ Typical Frequency Response Curve



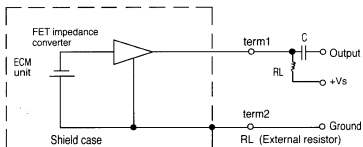
▪ Dimensional Drawing (Unit:mm)



CM6052BD

CM6052BD-P

▪ Schematic Diagram

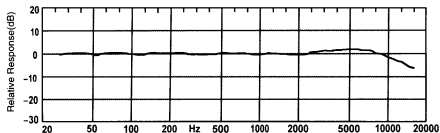


**ote:** The relation between "Pascal" and " bar" is as follow: 1Pa=10/ bar, So the sensitivity will increase 20dB with " Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)

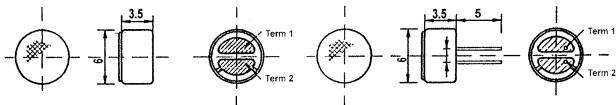
**V<sub>s</sub>=3V, R<sub>L</sub>=2.2KΩ**

|   |                      |           |
|---|----------------------|-----------|
| <b>Item No.:</b>                          | <b>CM6035BD (-P)</b> |           |
| <b>Sensitivity:<br/>(OdB=1V/Pa,1KHz)</b>  | -46 ± 3dB            | -44 ± 3dB |
|   | -42 ± 3dB            |           |
| <b>Impedance:</b>                         | Low impedance        |           |
| <b>Directivity:</b>                       | Omnidirectional      |           |
| <b>Frequency:</b>                         | 30 - 18,000Hz        |           |
| <b>Operation Voltage:<br/>(Max./Std.)</b> | 10V/3V               |           |
| <b>Resistance (R<sub>L</sub>):</b>        | 2.2KΩ                |           |
| <b>Current Consumption:</b>               | Max. 0.5mA           |           |
| <b>S/N Ratio:</b>                         | More than 58dB       |           |

■ Typical Frequency Response Curve



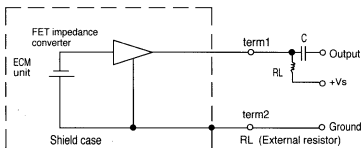
■ Dimensional Drawing (Unit:mm)



CM6035BD

CM6035BD-P

■ Schematic Diagram

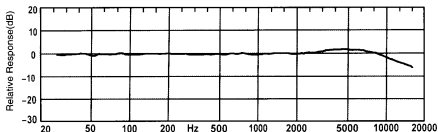


**ote:** The relation between "Pascal" and " bar" is as follow: 1Pa=10/ bar,So the sensitivity will increase 20dB with " Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)

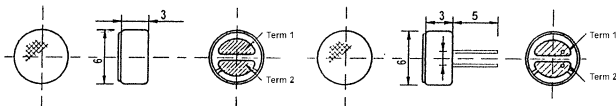
**Vs=3V, RL=2.2KΩ**

|   |                                       |
|---|---------------------------------------|
| <b>Item No.:</b>                                | <b>CM6030BD (-P)</b>                  |
| <b>Sensitivity:</b><br><b>(OdB=1V/Pa,1KHz)</b>  | -46 ± 4dB      -44 ± 4dB<br>-42 ± 4dB |
| <b>Impedance:</b>                               | Low impedance                         |
| <b>Directivity:</b>                             | Omnidirectional                       |
| <b>Frequency:</b>                               | 30 - 16,000Hz                         |
| <b>Operation Voltage:</b><br><b>(Max./Std.)</b> | 10V/3V                                |
| <b>Resistance (RL):</b>                         | 2.2KΩ                                 |
| <b>Current Consumption:</b>                     | Max. 0.5mA                            |
| <b>S/N Ratio:</b>                               | More than 58dB                        |

▪ Typical Frequency Response Curve



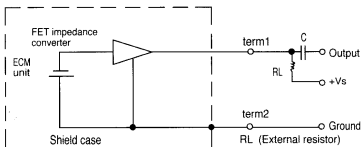
▪ Dimensional Drawing (Unit:mm)



CM6030BD

CM6030BD-P

▪ Schematic Diagram

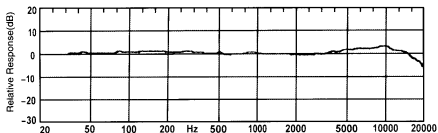


**Note:** The relation between "Pascal" and "bar" is as follow: 1Pa=10<sup>-5</sup> bar, So the sensitivity will increase 20dB with "Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)

**V<sub>s</sub>=3V, R<sub>L</sub>=2.2KΩ**

|  |                      |                |                |
|--|----------------------|----------------|----------------|
| <b>Item No.:</b>                         | <b>CM9745BD (-P)</b> |                |                |
| <b>Sensitivity:</b><br>(OdB=1V/Pa,1KHz)  | -46dB<br>-40dB       | -44dB<br>-38dB | -42dB<br>-36dB |
| <b>Impedance:</b>                        | Low impedance        |                |                |
| <b>Directivity:</b>                      | Omnidirectional      |                |                |
| <b>Frequency:</b>                        | 30 - 16,000Hz        |                |                |
| <b>Operation Voltage:</b><br>(Max./Std.) | 10V/3V               |                |                |
| <b>Resistance (R<sub>L</sub>):</b>       | 2.2KΩ                |                |                |
| <b>Current Consumption:</b>              | Max. 0.6mA           |                |                |
| <b>S/N Ratio:</b>                        | More than 60dB       |                |                |

▪ Typical Frequency Response Curve



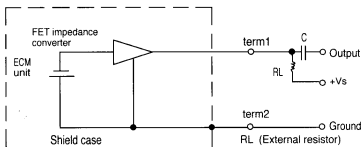
▪ Dimensional Drawing (Unit:mm)



CM9745BD

CM9745BD-P

▪ Schematic Diagram

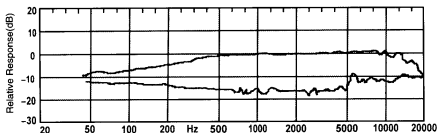


**Note:** The relation between "Pascal" and "bar" is as follow: 1Pa=10<sup>-5</sup> bar, So the sensitivity will increase 20dB with "Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)

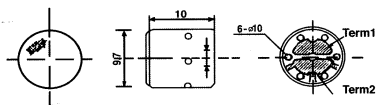
**V<sub>s</sub>=1.5V, R<sub>L</sub>=680 Ω**

|   |                   |
|---|-------------------|
| <b>Item No.:</b>                          | <b>UCM97100AA</b> |
| <b>Sensitivity:<br/>(OdB=1V/Pa,1KHz)</b>  | -47 ± 4dB         |
| <b>Impedance:</b>                         | Low impedance     |
| <b>Directivity:</b>                       | Unidirectional    |
| <b>Frequency:</b>                         | 100 - 16,000Hz    |
| <b>Operation Voltage:<br/>(Max./Std.)</b> | 10V/1.5V          |
| <b>Resistance (R<sub>L</sub>):</b>        | 680 Ω             |
| <b>Current Consumption:</b>               | Max. 0.5mA        |
| <b>S/N Ratio:</b>                         | More than 60dB    |

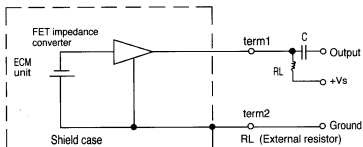
▪ Typical Frequency Response Curve



▪ Dimensional Drawing (Unit:mm)



▪ Schematic Diagram

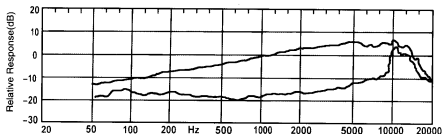


**Note:** The relation between "Pascal" and "bar" is as follow: 1Pa=10<sup>-5</sup> bar, So the sensitivity will increase 20dB with "Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)

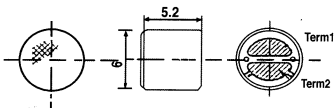
**Vs=3V, RL=2.2K $\Omega$**

|  |                                |
|--|--------------------------------|
| <b>Item No.:</b>                         | <b>UCM6052BD</b>               |
| <b>Sensitivity:</b><br>(OdB=1V/Pa,1KHz)  | -50 $\pm$ 4dB<br>-54 $\pm$ 4dB |
| <b>Impedance:</b>                        | Low impedance                  |
| <b>Directivity:</b>                      | Unidirectional                 |
| <b>Frequency:</b>                        | 100 - 12,000Hz                 |
| <b>Operation Voltage:</b><br>(Max./Std.) | 10V/1.5V                       |
| <b>Resistance (RL):</b>                  | 680 $\Omega$                   |
| <b>Current Consumption:</b>              | Max. 0.5mA                     |
| <b>S/N Ratio:</b>                        | More than 55dB                 |

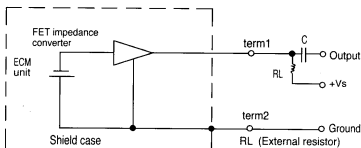
▪ Typical Frequency Response Curve



▪ Dimensional Drawing (Unit:mm)



▪ Schematic Diagram



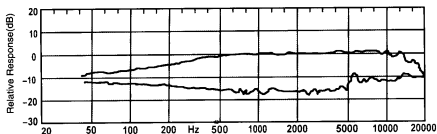
**Note:** The relation between "Pascal" and "bar" is as follow: 1Pa=10<sup>-5</sup> bar, So the sensitivity will increase 20dB with "Pa" indication. Example: -60dB(OdB=1V/bar)=-40dB(OdB=1V/Pa)



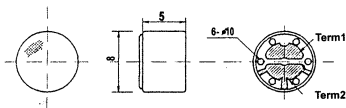
**Vs=1.5V, RL=680Ω**

|   |                        |
|---|------------------------|
| <b>Item No.:</b>                                | <b>UCM8050AA</b>       |
| <b>Sensitivity:</b><br><b>(OdB=1V/Pa,1KHz)</b>  | -47 ± 4dB<br>-50 ± 4dB |
| <b>Impedance:</b>                               | Low impedance          |
| <b>Directivity:</b>                             | Unidirectional         |
| <b>Frequency:</b>                               | 100 - 16,000Hz         |
| <b>Operation Voltage:</b><br><b>(Max./Std.)</b> | 10V/1.5V               |
| <b>Resistance (RL):</b>                         | 680 Ω                  |
| <b>Current Consumption:</b>                     | Max. 0.5mA             |
| <b>S/N Ratio:</b>                               | More than 58dB         |

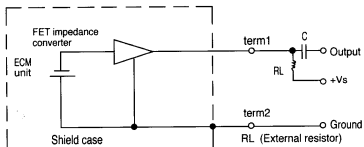
■ Typical Frequency Response Curve



■ Dimensional Drawing (Unit:mm)



■ Schematic Diagram



**Note:** The relation between "Pascal" and " bar" is as follow: 1Pa=10/ bar, So the sensitivity will increase 20dB with " Pa" indication. Example: -60dB(OdB=1V/ bar)=-40dB(OdB=1V/Pa)