

Model	Diameter (Ø mm)	Height (mm)	Rated Voltage (V)	Coil Resistance (Ω)	Min. Sound Output (dBA/10cm)	Frequency ( Hz )	Terminal *	Page No.
CDX094A1B	9.0	4.0	1.5	6.0 ± 1.0	85	2730	P	17
CDX094A3B	9.0	4.0	3.0	16.0 ± 2.0	85	2730	P	17
CDT094A3B	9.0	4.0	3.6	16.0 ± 3.0	87	2731	M	17
CDT094A3C	9.0	4.0	3.6	16.0 ± 3.0	87	3100	M	17
CDX094A5B	9.0	4.0	5.0	32.0 ± 3.0	85	2730	P	17
UDX01B	9.0	5.5	1.5	5.5 ± 1.0	80	2731	P	15
UDX01C	9.0	5.5	1.5	5.5 ± 1.0	80	3100	P	15
UDX05B	9.0	5.5	5.0	40.0 ± 7.5	85	2731	P	15
UDX05C	9.0	5.5	5.0	40.0 ± 7.5	85	3100	P	15
NDX01B	9.5	7.0	1.5	5.5 ± 1.0	80	2731	P	12
CDT093A3A	9.6	3.2	3.6	16.0 ± 2.4	90	2670	M	17
CDT093A3B	9.6	3.2	3.6	16.0 ± 2.4	90	2731	M	17
CDT093A3C	9.6	3.2	3.6	16.0 ± 2.4	90	3100	M	17
WDX01B	9.6	5.0	1.5	5.5 ± 1.0	80	2731	P	15
WDX01C	9.6	5.0	1.5	5.5 ± 1.0	80	3100	P	15
WDX05B	9.6	5.0	5.0	40.0 ± 7.5	85	2731	P	15
WDX05C	9.6	5.0	5.0	40.0 ± 7.5	85	3100	P	15
MDX01C	9.6	7.1	1.5	5.5 ± 1.0	80	3100	P	11
NDX01C	9.6	7.2	1.5	5.5 ± 1.0	80	3100	P	12
NDX05B	9.6	7.2	5.0	40.0 ± 7.5	85	2731	P	12
NDX05C	9.6	7.2	5.0	40.0 ± 7.5	85	3100	P	12
CDX104A1B	10.0	4.0	1.5	5.5 ± 2.0	85	2730	P	18
CDX104A3B	10.0	4.0	3.0	25.0 ± 3.0	85	2730	P	18
CDX104A5B	10.0	4.0	5.0	45.0 ± 4.0	85	2730	P	18
DB107	12.0	4.0	1.5	16.0 ± 4.0	75	2400	P	16
DB107A	12.0	4.0	1.5	16.0 ± 4.0	75	2048	P	16
DB105G	12.0	5.4	1.5	16.0 ± 2.0	75	2048	P	8
DB105C	12.0	5.4	1.5	42.0 ± 5.0	70	2048	P	8
DB105	12.0	5.4	1.5	50.0 ± 7.5	70	2048	P	8
DB106C	12.0	5.4	3.6	42.0 ± 5.0	70	1980	P	15
DB102G	12.0	5.6	1.5	15 ± 7.5	70	2048	M	8
PDX07B	12.0	6.0	1.5	5.0 ± 1.0	85	2700	P	12
PDX07D	12.0	6.0	1.5	6.5 ± 1.0	85	2731	P	12
PDX05A	12.0	7.0	1.5	6.5 ± 1.0	80	2048	P	13
PDX05B	12.0	7.0	1.5	6.5 ± 1.0	85	2731	P	13
PDX05C	12.0	7.0	1.5	50.0 ± 7.5	70	2048	P	13
PDX04A	12.0	7.5	1.5	6.5 ± 1.0	80	2048	P	12
PDX04B	12.0	7.5	1.5	6.5 ± 1.0	85	2731	P	12
PDX04C	12.0	7.5	1.5	50.0 ± 7.5	70	2048	P	12
PDX06A	12.0	7.5	1.5	6.5 ± 1.0	80	2048	P	13
PDX06B	12.0	7.5	1.5	6.5 ± 1.0	85	2731	P	13
PDX06C	12.0	7.5	1.5	50.0 ± 7.5	70	2048	P	13
DB111GF	12.0	8.5	1.5	16.0 ± 4.5	85	2048	L & P	9
DB111F	12.0	8.5	1.5	42.0 ± 5.0	80	2048	L & P	9
DB111AF	12.0	8.5	1.5	50.0 ± 7.5	80	2048	L & P	9

\* L - Leadwire, P - PIN, M - SMD

Model	Diameter (Ømm)	Height (mm)	Rated Voltage (V)	Coil Resistance (Ω)	Min. Sound Output (dBA/10cm)	Frequency ( Hz )	Terminal *	Page No.
DB111D	12.0	8.5	1.5	42.0 ± 4.5	80	4096	L & P	9
DB112G	12.0	8.5	1.5	16.0 ± 4.5	85	2048	P	9
DB111GC	12.0	8.5	3.6	16.0 ± 4.5	85	2048	L & P	9
DBX01	12.0	9.0	1.5	6.5 ± 1.0	75	2400	P	10
DBX01A	12.0	9.0	1.5	6.5 ± 1.0	75	2048	P	10
DBX05	12.0	9.0	5.0	47.0 ± 5.0	85	2400	P	10
DBX05A	12.0	9.0	5.0	47.0 ± 5.0	85	2048	P	10
DBX05B	12.0	9.0	5.0	47.0 ± 5.0	85	2200	P	10
DBX12	12.0	9.0	12.0	140.0 ± 14.0	85	2400	P	10
DBX12A	12.0	9.0	12.0	140.0 ± 14.0	85	2048	P	10
ZDX06PN	12.0	9.5	6.0	50.0 ± 5.0	85	2200	P	11
HDX01	12.0	10.0	1.5	16.0 ± 4.5	80	2400	P	11
HDX01D	12.0	10.0	1.5	16.0 ± 4.5	85	2800	P	11
HDX01E	12.0	10.0	1.5	3.5 ± 1.0	85	2200	P	11
HDX05	12.0	10.0	5.0	40.0 ± 5.0	85	2400	P	11
DB113	12.0	13.0	1.5	16.0 ± 4.5	80	2048	P	9
DB108	14.0	5.0	3.0	15.0 ± 6.0	85	2000	P	16
GDX12	16.0	12.0	12.0	135.0 ± 20.0	85	2048	P	10
DB01	16.0	14.0	1.5	27.0 ± 3.0	80	2048	P	8
DB06	16.0	14.0	6.0	50.0 ± 5.0	85	2048	P	8
DB12	16.0	14.0	12.0	115.0 ± 12.0	85	2048	P	8
RDX06	16.0	14.5	6.0	45.0 ± 7.0	85	2000 ~ 3000	P	13
RDX12	16.0	14.5	12.0	117.0 ± 17.0	85	2000 ~ 3000	P	13
DB01A	16.0	22.2	1.5	27.0 ± 3.0	80	2048	P	10
DB06A	16.0	22.2	6.0	50.0 ± 5.0	85	2048	P	10
DB12A	16.0	22.2	12.0	115.0 ± 12.0	85	2048	P	10
TDX06	25.0	12.5	5.0	27.0 ± 4.0	85	730	P	14
TDX06S	25.0	12.5	6.0	36.0 ± 5.0	85	1000 ~ 1500	P	14
TDX12S	25.0	12.5	12.0	120.0 ± 15.0	85	1000 ~ 1500	P	14
UDT0823A	8.0 X 7.6	2.5	3.6	16.0 ± 2.4	88	2670	M	20
UDT0823B	8.0 X 7.6	2.5	3.6	16.0 ± 2.4	88	2731	M	20
UDT083A3A	8.0 X 7.6	3.0	3.6	16.0 ± 2.4	88	2670	M	21
UDT083A3B	8.0 X 7.6	3.0	3.6	16.0 ± 2.4	88	2731	M	21
UDT083A3C	8.0 X 7.6	3.0	3.6	16.0 ± 2.4	88	3100	M	21
SDT0831A	8.5 X 8.5	3.0	1.5	5.5 ± 2.0	80	2350	M	19
SDT0831B	8.5 X 8.5	3.0	1.5	5.5 ± 2.0	80	2730	M	19
SDT0833A	8.5 X 8.5	3.0	3.0	17.0 ± 2.0	85	2350	M	19
SDT0833B	8.5 X 8.5	3.0	3.0	17.0 ± 3.0	90	2730	M	19
SDT083B3A	8.5 X 8.5	3.0	3.6	16.0 ± 2.4	88	2500	M	19
UDT0833A	8.5 X 8.5	3.0	3.6	16.0 ± 2.4	90	2670	M	21
SDT0835A	8.5 X 8.5	3.0	5.0	30.0 ± 3.0	87	2350	M	19
SDT0835B	8.5 X 8.5	3.0	5.0	30.0 ± 3.0	87	2730	M	19
SDT083A3B	8.5 X 8.5	3.2	3.6	16.0 ± 3.0	85	2730	M	19
SDT083A3C	8.5 X 8.5	3.2	3.6	16.0 ± 3.0	85	3100	M	19
SDT0843A	8.5 X 8.5	4.0	3.0	17.0 ± 3.0	85	2350	M	20

\* L - Leadwire, P - PIN, M - SMD

### DB 111

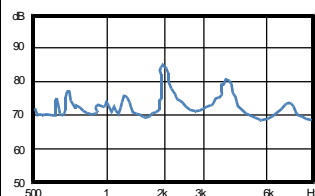
Standard Type



COLOUR	HOUSING	TERMINAL
BLACK	NORYL SE1	LEADWIRE/ PIN

#### FREQUENCY RESPONSE

[actual curve of type DB111]



APPLIED VOLTAGE: 1.5V, 1/2 DUTY, SQUARE WAVE DISTANCE FOR MEASUREMENT: 10cm

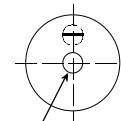
#### ELECTRICAL SPECIFICATIONS

Model No.	DB111GC	DB111GF	DB111F	DB111AF	DB111D
Operating Voltage (V)	1-5	1-5	1-5	1-5	5
Rated Voltage (V)	3.6	1.5	1.5	1.5	1.5
▲ Max. Rated Current (mA)	60	30	15	10	15
Coil Resistance (Ω)	16±4.5	16±4.5	42±5	50±7.5	42±5
*Coil Impedance (Ω)	40	40	80	140	40
▲ Min Sound Output (dBA/10cm)	85	85	80	80	80
Resonant Frequency (Hz)	2048	2048	2048	2048	4096
Operating Temperature (°C)	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60
Weight (gm.)	2	2	2	2	2

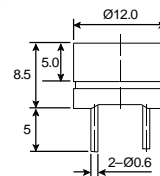
▲ Value applying rated voltage (2048Hz, 1/2 duty, square wave)  
\* Value applying (2048Hz, sine wave, measuring current 60μA)  
Tube Packing is available on request.

#### DIMENSION

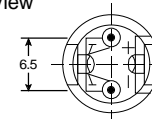
Top View



Side View



Bottom View



all dimensions are in mm

### DB 112

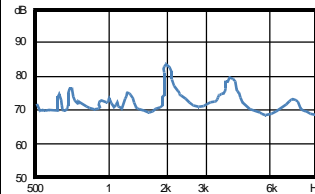
Standard Type



COLOUR	HOUSING	TERMINAL
BLACK	NORYL SE1	PIN

#### FREQUENCY RESPONSE

[actual curve of type DB112G]



APPLIED VOLTAGE: 1.5V, 1/2 DUTY, SQUARE WAVE DISTANCE FOR MEASUREMENT: 10cm

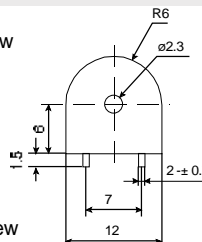
#### ELECTRICAL SPECIFICATIONS

Model No.	DB112G
Operating Voltage (V)	1-2
Rated Voltage (V)	1.5
▲ Max. Rated Current (mA)	30
Coil Resistance (Ω)	16±4.5
*Coil Impedance (Ω)	40
▲ Min Sound Output (dBA/10cm)	85
Resonant Frequency (Hz)	2048
Operating Temperature (°C)	-20 ~ +60
Weight (gm.)	2

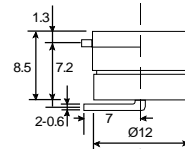
▲ Value applying rated voltage (2048Hz, 1/2 duty, square wave)  
\* Value applying (2048Hz, sine wave, measuring current 60μA)

#### DIMENSION

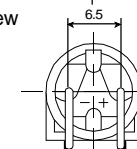
Top View



Side View



Bottom View



all dimensions are in mm

### DB 113

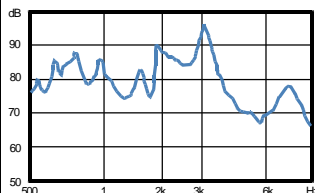
Standard Type



COLOUR	HOUSING	TERMINAL
BLACK	NORYL SE1	PIN

#### FREQUENCY RESPONSE

[actual curve of type DB113]



APPLIED VOLTAGE: 1.5V, 1/2 DUTY, SQUARE WAVE DISTANCE FOR MEASUREMENT: 10cm

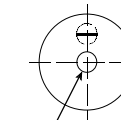
#### ELECTRICAL SPECIFICATIONS

Model No.	DB113
Operating Voltage (V)	1-2
Rated Voltage (V)	1.5
▲ Max. Rated Current (mA)	30
Coil Resistance (Ω)	16±4.5
*Coil Impedance (Ω)	40
▲ Min Sound Output (dBA/10cm)	80
Resonant Frequency (Hz)	2048
Operating Temperature (°C)	-20 ~ +60
Weight (gm.)	2

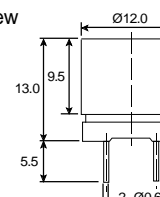
▲ Value applying rated voltage (2048Hz, 1/2 duty, square wave)  
\* Value applying (2048Hz, sine wave, measuring current 60μA)

#### DIMENSION

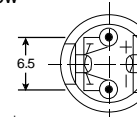
Top View



Side View



Bottom View



all dimensions are in mm

### DB107

Standard Type

COLOUR	HOUSING	TERMINAL
BLACK	NORYL SE1	PIN

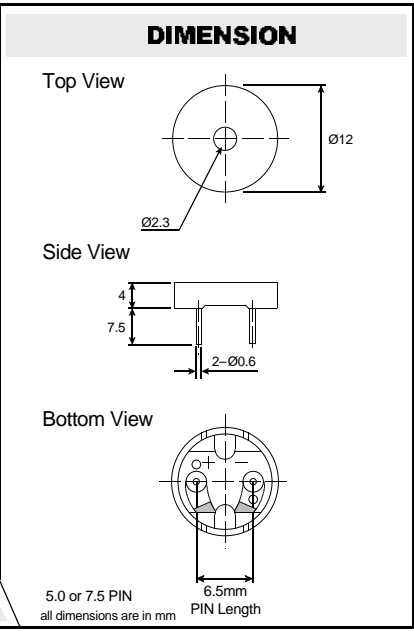
**FREQUENCY RESPONSE**  
[actual curve of type DB107]

APPLIED VOLTAGE: 3.6V, 1/2 DUTY, SQUARE WAVE DISTANCE FOR MEASUREMENT: 10cm

**ELECTRICAL SPECIFICATIONS**

Model No.	DB107	DB107A
Operating Voltage (V)	1 - 2	1 - 2
Rated Voltage (V)	1.5	1.5
▲ Max. Rated Current (mA.)	30	30
Coil Resistance (Ω)	16±4	16±4
▲ Min Sound Output (dBA/10cm)	75	75
Resonant Frequency (Hz.)	2400	2048
Operating Temperature (°C)	-20 ~ +60	-20 ~ +60
Weight (gm.)	2	2

▲ Value applying rated voltage (Resonant Frequency, 1/2 duty, square wave)



### DB108

Standard Type

COLOUR	HOUSING	TERMINAL
BLACK	NORYL SE1	PIN

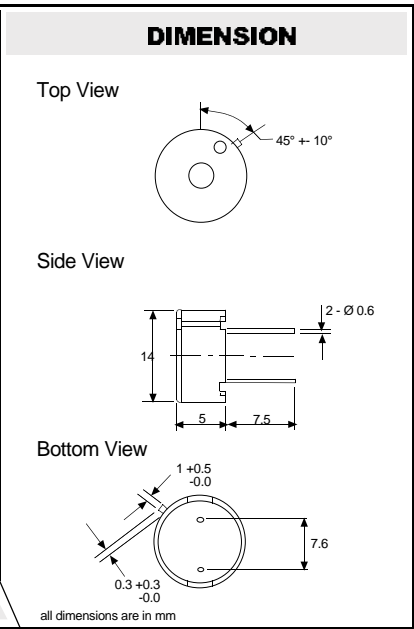
**FREQUENCY RESPONSE**  
[actual curve of type DB108]

APPLIED VOLTAGE: 6V, 1/2 DUTY, SQUARE WAVE DISTANCE FOR MEASUREMENT: 10cm

**ELECTRICAL SPECIFICATIONS**

Model No.	DB108
Operating Voltage (V)	1 - 4
Rated Voltage (V)	3
▲ Max. Rated Current (mA.)	35
Coil Resistance (Ω)	15±6
▲ Min Sound Output (dBA/10cm)	85
Resonant Frequency (Hz.)	2000
Operating Temperature (°C)	-20 ~ +60
Weight (gm.)	2

▲ Value applying rated voltage (Resonant Frequency, 1/2 duty, square wave)  
\* Value applying (Resonant Frequency, 1/2 duty, square wave, measuring current 60μA)



### SCDX

SMD Type

COLOUR	HOUSING	TERMINAL
GREY	PPS	SMD

**FREQUENCY RESPONSE**  
[actual curve of type SDX06]

APPLIED VOLTAGE: 6V, 1/2 DUTY, SQUARE WAVE DISTANCE FOR MEASUREMENT: 10cm

**ELECTRICAL SPECIFICATIONS**

Model No.	SCDX05	SCDX12	SCDX05A	SCDX12A	SCDX03C
Operating Voltage (V)	4 ~ 8	8 ~ 16	4 ~ 8	8 ~ 16	2 ~ 4
Rated Voltage (V)	5	12	5	12	3
▲ Max. Rated Current (mA.)	40	45	40	45	70
* Coil Resistance (Ω)	47±5	140±14	47±5	140±14	16±4.5
* Coil Impedance (Ω)	80	240	80	240	40
▲ Min Sound Output (dB)	87	87	87	87	87
Resonant Frequency (Hz.)	2400	2400	2048	2048	3000
Operating Temperature (°C)	-20 ~ +70	-30 ~ +70	-30 ~ +70	-30 ~ +70	-30 ~ +70
Weight (gm.)	2	2	2	2	2

▲ Value applying rated voltage (Resonant Frequency, 1/2 duty, square wave)  
\* Value applying (Resonant Frequency, 1/2 duty, square wave, measuring current 60μA)  
Tape & Reel Packing is available.

