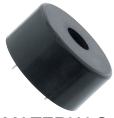


Piezo Buzzer

SPB59



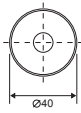
MATERIALS

Color - Black
Plastic Material - ABS
Terminal - Pin Type

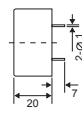
Weight

approx. 8 gm.

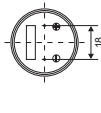
TOP VIEW



SIDE VIEW



BOTTOM VIEW



All dimensions are in mm
Unspecified Tolerance are +/-0.5mm

Model	Unit	PB59-SD9APR
Operating Voltage	V	3 ~ 15
Rated Voltage	V	9
* Max. Rated Current	mA	50
* Min. Sound Output at 1m	dBA	90
* Frequency	Hz	3200 +/- 500
Tone Nature		Single
Operating Temperature	°C	-20 ~ +60

SPB61



MATERIALS

Color - White
Plastic Material - ABS
Terminal - Plate Type

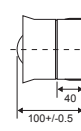
Weight

approx. 8 gm.

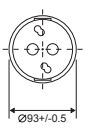
TOP VIEW



SIDE VIEW



BOTTOM VIEW



All dimensions are in mm
Unspecified Tolerance are +/-0.5mm

Model	Unit	PB61-MM1224ANR
Operating Voltage	V	1 ~ 30
Rated Voltage	V	12/24
* Max. Rated Current	mA	32
*# Min. Sound Output	dBA	-
*# Frequency	Hz	-
Tone Nature		Multi-Tone
Operating Temperature	°C	-40 ~ +80

#See Tone-table

SPB60



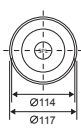
MATERIALS

Color - White
Plastic Material - PBT
Terminal - Plate Type

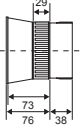
Weight

approx. 43 gm.

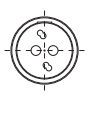
TOP VIEW



SIDE VIEW



BOTTOM VIEW



All dimensions are in mm
Unspecified Tolerance are +/-0.5mm

Model	Unit	PB60-MM1224ANR
Operating Voltage	V	6 ~ 28
Rated Voltage	V	12/24
* Max. Rated Current	mA	260
*# Min. Sound Output	dBA	-
*# Frequency	Hz	-
Tone Nature		Multi-Tone
Operating Temperature	°C	-40 ~ +80

#See Tone-table

SMD Speaker

MSM1313



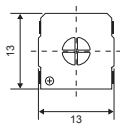
MATERIALS

Color - Black
House Material - Plastic
Terminal - SMD Type
Shape - Square

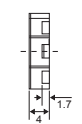
Weight

approx. 1.1 gm.

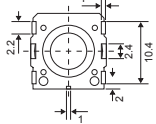
TOP VIEW



SIDE VIEW



BOTTOM VIEW



All dimensions are in mm
Unspecified Tolerance are +/-0.5mm

Model	Unit	MSM1313-01R
Sound Pressure Level	dB	88 +/- 3dB
Impedance	ohm	8 ohm +/- 15%
Resonant Frequency [Fo]	Hz	850 Hz +/- 20%
Frequency Response	Hz	Fo ~ 20K Hz
Rated Input Power	W	0.7 W
Max. Input Power	W	1.0 W
Operating Temperature	°C	-30 ~ +85

MSM1515



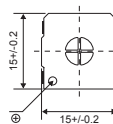
MATERIALS

Color - Black
House Material - Plastic
Terminal - SMD Type
Shape - Square

Weight

approx. 1.5 gm.

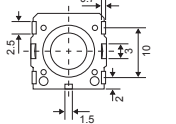
TOP VIEW



SIDE VIEW



BOTTOM VIEW



All dimensions are in mm
Unspecified Tolerance are +/-0.5mm

Model	Unit	MSM1515-02R
Sound Pressure Level	dB	92 +/- 2dB
Impedance	ohm	8 ohm +/- 15%
Resonant Frequency [Fo]	Hz	800 Hz +/- 15%
Frequency Response	Hz	Fo ~ 20K Hz
Rated Input Power	W	0.5 W
Max. Input Power	W	0.8 W
Operating Temperature	°C	-30 ~ +85

*Value applying at rated voltage