

PIEZO PASSIVE BUZZER - VERTICAL

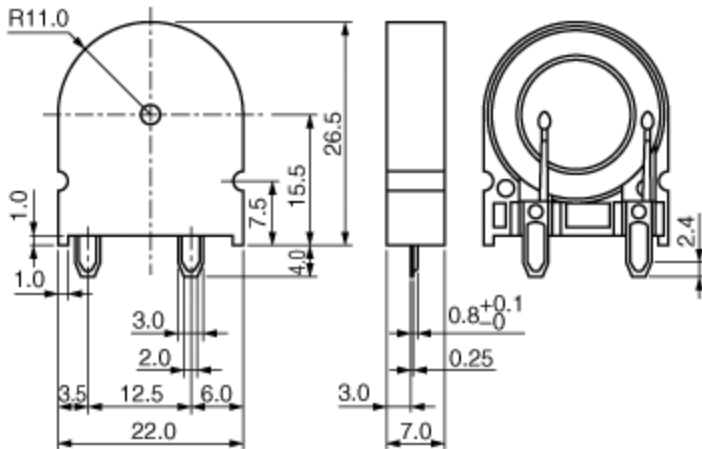
Externally driven piezoelectric sounders are used in washing machines, keyboard, timer, digital watches, electronic calculators, telephones and other consumer equipment. They are driven by a signal (ex.: 2048Hz or 4096Hz) from an LSI/MCU and provide melodious sound. Also, if the source is like a melody IC, you can also sound melody. Equivalent to Murata PKM22EPHT2001-B0.

Features

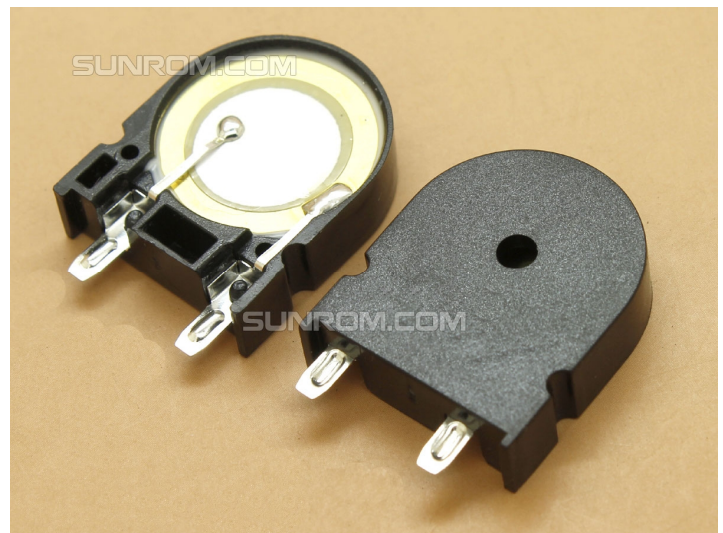
1. Low power consumption
2. No noise and high reliability
3. No electric noise and little influence on peripheral circuits
4. It complies with the JEITA standard (RC - 8180A)

DIMENSIONS

PCB Holes we suggest of 3.2mm dia. with 12.5mm space apart



Tol.: ±0.5
(in mm)



SPECIFICATIONS

Size	22.0×7.0×26.5 mm
Frequency	2 kHz
Sound Pressure Level	70dB (min.)
Measure Condition of Sound Pressure Level	[3.0Vp-p,2.0kHz,square wave,10cm]
Capacitance	19nF
Capacitance Tolerance	±30%
Measurement Condition of Capacitance	[120Hz]
Maximum input voltage	±12.5Vo-p max. or 25.0Vo-p max
Operating Temperature Range	-20°C to 70°C
Storage Temperature Range	-40°C to 80°C
Shape	Lead
Lead Shape	Pin Type
Lead length	Lead length:4.0mm
Drive Type	External Drive
EIAJ Part Number	PS-RP2-V27-20

Figure 1 Frequency Characteristics (sine wave)

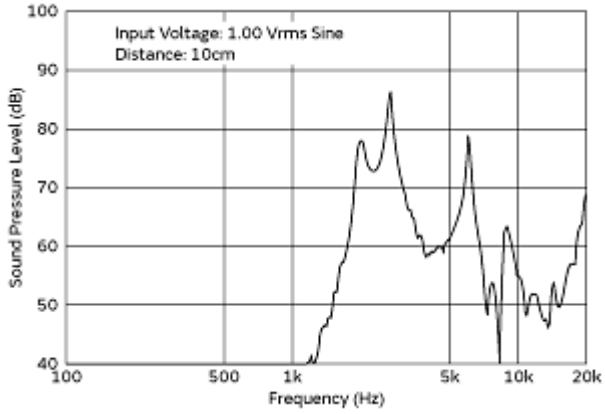


Figure 2 Frequency Characteristics (square wave)

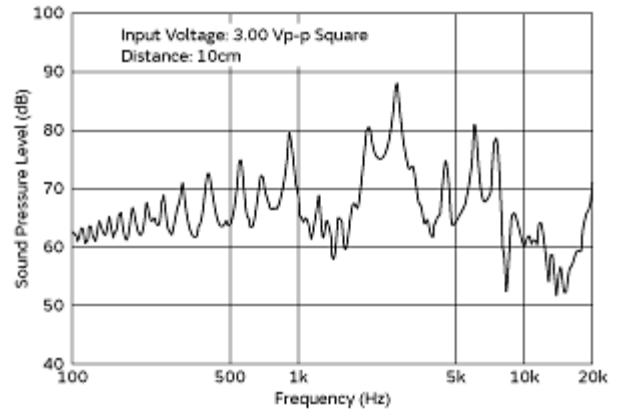
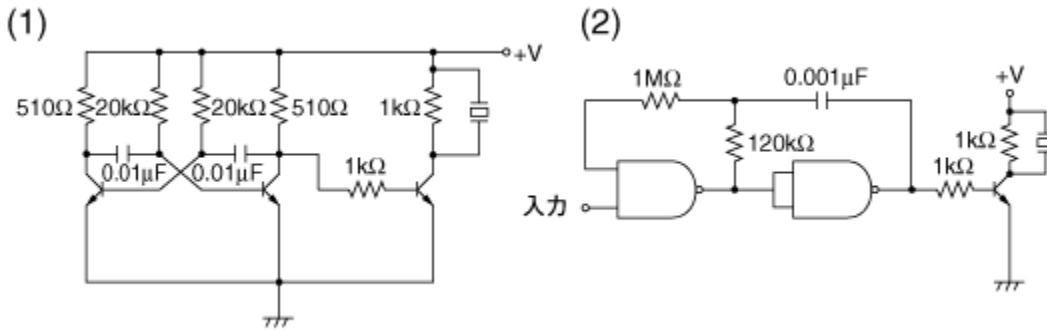


Figure 3 Typical Externally Driving circuit, Astable, NAND, Inverter gates



NOTES

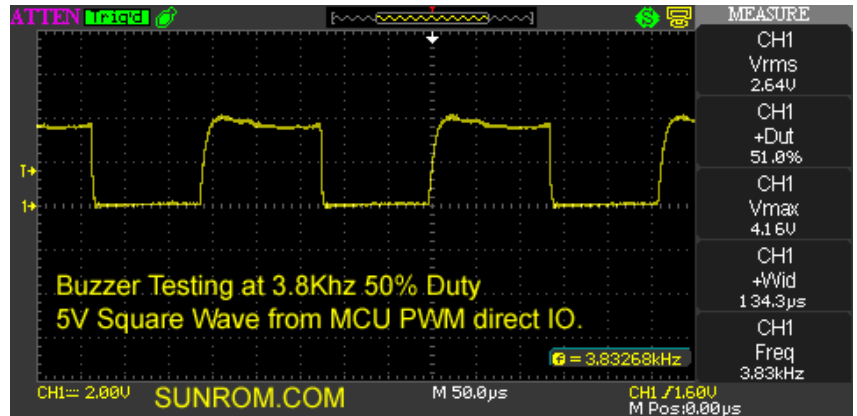
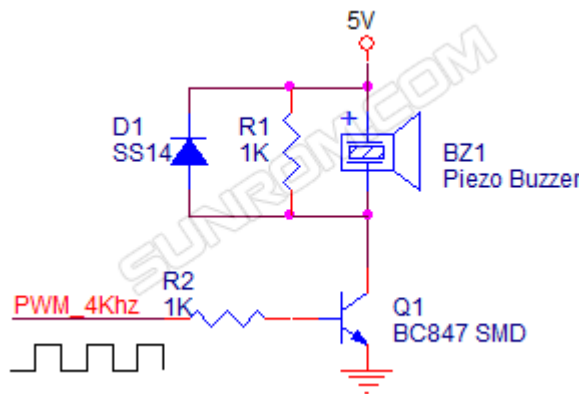
Please note, Unlike electromagnetic types which has coil, This buzzer does not contains internal driving circuit, so do not expect to just power on and hear something. It needs square wave of 4Khz to drive. The black case provides cavity for resonance and protection. You can vary its frequency to create tones just like you hear from microwave or washing machine.

When compared to low cost electromagnetic type buzzer this piezo consumes only 2-3mA, while coil type can take upto 100mA. Low current consumption makes it ideal for battery operation. While electromagnetic type is high on EMI, this piezo's emi noise is very negligible.

Buzzer Comparison

Parameter	Piezo Buzzer This model	Other Electromagnetic Coil Type
Current	2-3mA	150-200mA
Moisture	Proof	Sensitive to moisture
Operation Life	Long, No moving parts	Coil heats and life is around 2 years
Operation Temp	High upto 150 deg C	approx 50 deg C
Noise	Does not emit	Emit high EMI noise over driving voltage
Technology	Piezo Vibration	Coil Oscillation
Frequency	Variable 1-10Khz	Fixed

You can use frequency from 1 KHz to 10 KHz but highest amplitude you will get around 4 KHz. Please see graph of frequency response above. This is how we use it in our designs at Sunrom.



ORDERING DETAILS

Sunrom Part#	Ordering Page
5288	http://www.sunrom.com/m/5288