

Piezoelectric Sound Components



Piezoelectric Sounders External Drive Lead Wire Type

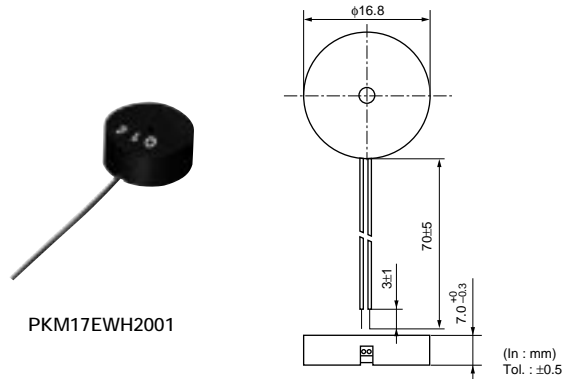
Now microcomputers are widely used for microwave ovens, air conditioners, cars, toys, timers, and other alarm equipment. Externally driven piezoelectric sounders are used in digital watches, electronic calculators, telephones and other equipment. They are driven by a signal (ex.: 2048Hz or 4096Hz) from an LSI and provide melodious sound.

■ Features

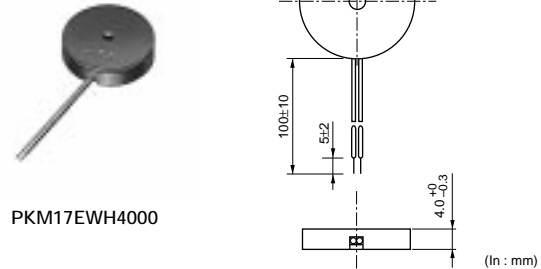
1. Low power consumption
2. No contacts therefore, no noise and highly reliable

■ Applications

1. Telephone ringers
2. Various office equipment such as PPCs, printers and keyboards
3. Various home appliances such as microwave ovens
4. Confirmation sound of various audio equipment



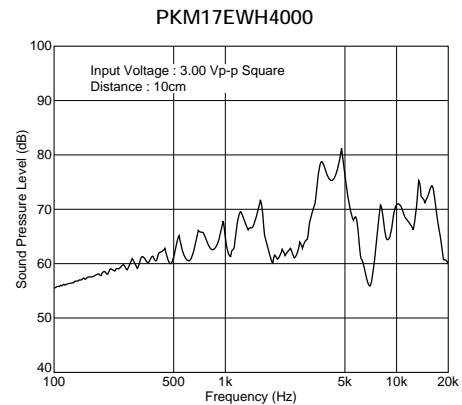
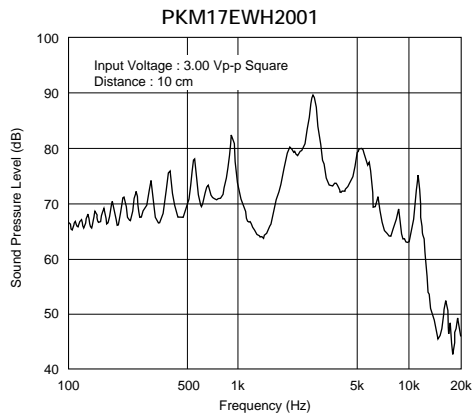
PKM17EWH2001



PKM17EWH4000

Part Number	Sound Pressure Level (dB)	Sound Pressure Level (Ref. only) (dB)	Operating Voltage Range	Capacitance (nF)	Operating Temp. Range (°C)	Storage Temp. Range (°C)
PKM17EWH2001	72 min. [3Vp-p,2kHz,square wave,10cm]	70 min. [1Vrms,2kHz,sine wave,10cm]	7 Vp-p max.	40 ±30% [120Hz]	-20 to +70	-30 to +80
PKM17EWH4000	75 min. [3Vp-p,4kHz,square wave,10cm]	70 min. [1Vrms,4kHz,sine wave,10cm]	25 Vp-p max.	9.5 ±30% [1kHz]	-20 to +70	-30 to +80

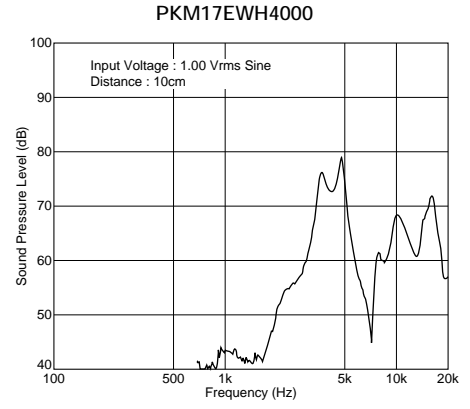
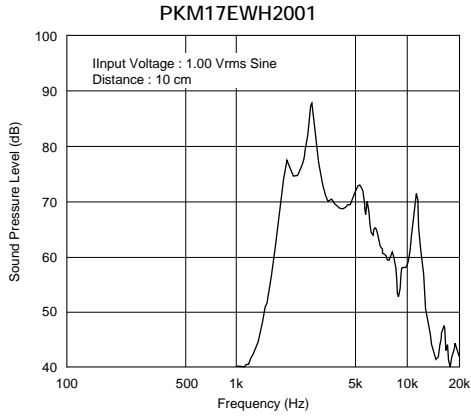
■ Freq. Response (Square Wave 3Vp-p, 10cm)



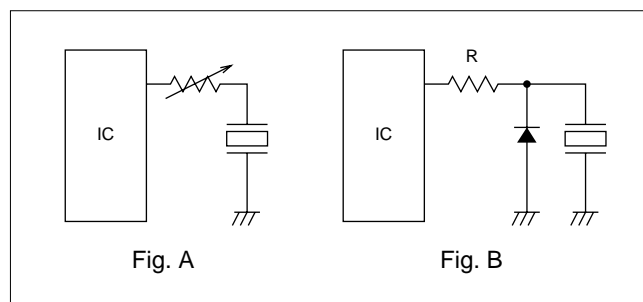
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■ Freq. Response (Sine Wave 1Vrms, 10cm)



1. The component may be damaged if mechanical stress exceeding specifications is applied.
2. Take care to protect operating circuit from surge voltage resulting from excessive force, falling, shock or temperature change.
3. If DC voltage is applied to the component, silver migration may occur. Please pay full attention to avoid subjecting the component to DC voltage for long periods.
4. The resistor should be used as shown in Fig. A.
A suitable resistance value should be chosen, preferably $1\text{k}\Omega$ to $2\text{k}\Omega$. Instead of this measure, a diode may also be applied as shown in Fig. B.



5. Avoid excessive pulling of lead wire because wire may break or soldering point may come off.

● Part Numbering

Piezoelectric Sounders/Piezoelectric Buzzers/Piezoelectric Ringers (PIEZORINGER®)

(Part Number)

PK	M	13	E	P	YH	40	00	P	-A0
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

① Product ID

Product ID	
PK	Piezoelectric Sound Components

② Product

Code	Product
M	Sounder, Ringer
B	Buzzer

③ Outer Dimensions

Expressed by two figures in mm.

Ex.)

Code	Outer Dimensions
13	ø12.6mm

④ Drive

Code	Drive
E	External-Drive
S	Self-Drive

⑤ Outer Electrode Style

Code	Outer Electrode Style
P	Pin Type
W	Lead Wire Type

⑥ Structure

Code	Structure
T□	Standing Type
P□	Flat Type Auto-assemble
Y□	Flat Type/Available for Taping
C□	Flat Type/Semi-auto-assemble
□	Exclude above mentioned

□ means specification of outer electrode.

⑦ Oscillating Frequency Type

Code	Oscillating Frequency Type
40	Expressed resonant frequency by two-digit alphanumerics. The unit is in 100 hertz (Hz). In case of 4kHz (4000Hz), expressed as "40".

⑧ Individual Specification Code

Code	Individual Specification Code
00	Two digits express specific specification in characteristics.

⑨ Special Quality Guarantee

Code	Special Quality Guarantee
P	Post Plated Terminal
-	Blank

⑩ Packaging

Code	Packaging
-B0	Bulk
-A0	Radial Taping
-M0	Magazine

Radial taping or magazines are not available for all types.

Please contact us.

Packaging Code is blank in the case of types that radial taping or magazines are not available.