



As the number of telephones using IC's has increased dramatically during the past several years, there has been a corresponding increase in the number of telephone manufacturers using piezo transducers as telephone ringers. Designed to replace the more expensive and larger electromechanical devices, these ringers are small, emit clear penetrating sounds, offer wide frequency ranges and are low cost.

Representative models of the Murata Electronics offering in this area are shown below.

FEATURES

- Emit a clear penetrating sound
- Low power consumption
- Can be driven directly by IC's
- Extremely thin and lightweight
- Low frequency and multi-frequency capability
- Speaker, microphone capability
- No EMI/RFI

Part Number	*PKD22EW-01R NEW	*PKD33EW-01R
Frequency Range	300Hz to 3.4KHz	300Hz to 3.4KHz
Operating Temp. Range	-20°C to +70°C	-20°C to +70°C
Storage Temp. Range	-30°C to +70°C	-30°C to +70°C
Capacitance	72nF ± 30% @ 120Hz	130nF ± 30% @ 120Hz
Case Material	Plastic	Aluminum
Leads	32AWG (UL-1685)	30AWG (UL-1571)
DIMENSIONS: mm		
SOUND PRESSURE LEVEL VS. FREQUENCY		

*Available as standard through authorized Murata Electronics Distributors.