## **Murata's Environmentally Conscious Products**

Lead Free



Murata has developed a system for supplying all our ultra-compact chip monolithic ceramic capacitors (in sizes ranging from  $0.6 \times 0.3$  mm to  $5.7 \times 5.0$  mm) meeting the specification for lead-free electrodes.

Moreover, we have employed the same system to supply lead-free thermistors, the industry's smallest (0.6 x 0.3 x 0.3 mm) chip monolithic ferrite beads, and many other products. See page 16.  $\checkmark$ 

Ultra-Compact Chip Monolithic Ferrite Beads

Compact



Ultra-compact Lightweight HCI Modules for *Bluetooth*<sup>®</sup> (Blue Modules<sup>™</sup>)

This module was developed with Murata's longstanding lowtemperature co-fired ceramics technology combined with ceramic multilayer functional substrate technology and microwave circuit design technology. Measuring a mere 9.3 mm x 7.9 mm x 1.8 mm, for a roughly 25% reduction in size, this module is more compact than our conventional products.

As a result of this size reduction, this module contributes to a reduction in multiple environmental impacts through energy saving and reduced waste during manufacturing as well as space-saving and reduced consumption of principal raw materials.

## **Power Saving**



Energy-saving Switching Power Supply

Murata has long been focusing on the development of a high-efficiency energy-saving power supply module.

Responding to the need to reduce the power consumption of devices that are on 24 hours a day, we have employed our standby power supply technology - created through the development and marketing of products with energy-saving power supplies - to achieve the lowest standby power loss in the industry, a mere 0.1 W.

Moreover, our technology for saving energy in rated-use conditions has enabled us to develop and market a high-efficiency quasi-resonant converter that achieves more than 90% conversion efficiency at AC input, contributing to equipment with improved energy efficiency.

Thanks to these energy-saving power technologies, Murata has become an industry leader in this area.