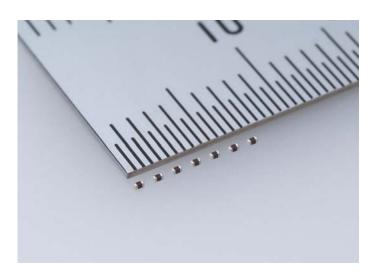
For immediate release

## Taiyo Yuden Introduces EIA 0201 Multilayer Chip Varistors with High ESD Tolerance

Ideal for Electrostatic Discharge Protection in Hand-Held Mobile Devices



TOKYO, September 30 2009 — Taiyo Yuden Co., Ltd. announced today the release of two new multilayer chip varistors designed to protect today's slim and compact hand-held mobile devices against electrostatic discharge (ESD). The new multilayer chip varistors boast the industry's highest electrostatic resistance in the EIA 0201 size. Both the new VR063 101A120 and VR063 101A080 varistors measure only 0.6 x 0.3 x 0.3 mm, for a 78% reduction in volume compared to the company's previous EIA 0402 multilayer chip varistor with the same varistor voltage, ESD resistance, and other electrical characteristics.

Mass production of the new EIA 0201 multilayer chip varistors will begin in October 2009 at an output pace of 20 million units per month. The price for samples is 5 yen per unit.

## **Technology Background**

Digital electronic devices require ESD protection for their ICs and other semiconductor components due to their vulnerability to electrostatic discharge, which can cause malfunction or damage. Hand-held devices like mobile phones, smartphones, and digital audio players are particularly susceptible since they often touch the user, whose body itself is a source of static electricity. Slim, compact devices tend to sacrifice grounding performance and the number of input-output interfaces has also increased to enable more functions, both of which have made ESD protection more and more important. In addition, these devices continue to get smaller and slimmer, with the passive components used inside shifting mainly into the EIA 0201 size. These trends combine to require high-performance chip varistors for ESD protection to be equally compact.

Taiyo Yuden's multilayer chip varistors in the EIA 0402 size are already renowned for their superior electrostatic voltage characteristics. By optimizing the design for its multilayer chip varistors, the company has now developed compact versions without compromising the

outstanding performance of its larger products.

The product will be on display at the Taiyo Yuden booth for CEATEC Japan 2009, which starts October 6, 2009 at Makuhari Messe (Mihama-ku, Chiba City).

The product portfolio of multilayer chip varistors in the EIA 0201 size is shown below:

Ordering code	Varistor voltage [V]	Rated voltage [V]	Clamping voltage [V]	ESD peak voltage [kV]	Capacitance (reference value) [pF]	
VR063 101A120	12 ± 20%	7.5	22	15	100	*
VR063 101A080	8 ± 20%	5.5	15	15	100	*
VR063 330A120	$12 \pm 20\%$	7.5	22	8	33	

<sup>(\*</sup> indicates new products.)