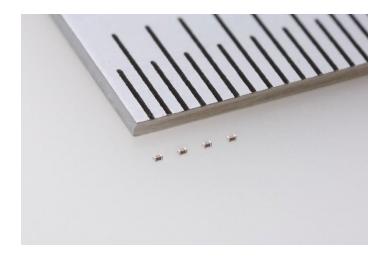
For immediate release

TAIYO YUDEN Commercializes 0201 Size High Frequency Multilayer Ceramic

Capacitor

Smaller than the 0402 size, this new product enables the creation of smaller and thinner devices



TOKYO, March 8, 2017—TAIYO YUDEN CO., LTD. has begun mass production of the world's smallest 0201 size (0.25 x 0.125 x 0.125 mm) high frequency multilayer ceramic capacitors.

This product delivers narrow capacitance deviation even at a size that is roughly 75% smaller than our existing 0402 size ($0.4 \times 0.2 \times 0.2 \text{ mm}$) high frequency multilayer ceramic capacitors, which had until now been our smallest.

The product will be used in impedance matching applications in high frequency circuitry on devices such as smartphones and IoT devices, which are increasingly becoming thinner and smaller.

Mass Production of the product began in January 2017 at our Tamamura plant (Tamamura-machi, Sawa-gun, Gunma Prefecture, Japan) at a rate of 10 million units per month, with a sample price of 10 yen per unit.

Technology Background

With smartphones that continue to trend thinner while delivering better functionality, and the increasing popularity of IoT devices, the demand for smaller electronic parts is on the rise to reduce the mounting footprints of high frequency circuits and modules. At the same time, because smaller multilayer ceramic capacitors suffer from lower rated voltages and other characteristics, there is an ongoing need to improve them to achieve smaller size.

As more and more devices become multi-band compatible to support the diverse range of telecom standards and frequency ranges adopted around the world, demand has been on the rise for impedance matching circuitry that supports each of these different telecom standards, requiring manufacturers to develop multiple line-ups of products in smaller steps.

In response to these demands, TAIYO YUDEN has succeeded in reducing the size of its high frequency capacitors to 0201 from the previous 0402. Our products come in small steps of capacitance variance, resulting in a broad lineup of 100 items.

Moving forward, we will continue to make our multilayer ceramic capacitors even smaller and thinner, as well as enhance their capacitance in response to market demands.

■Applications

Impedance matching applications for high frequency circuitry that are essential for making devices such as smartphones and IoT devices smaller and thinner.

The product lineup of the High Frequency Multilayer Ceramic Capacitor that are currently being commercialized is as follows (100 models in all). A symbol representing the capacitance tolerance (A, B, C, D, G, J) goes in the \Box in the ordering code.

Parts number	Rated voltage (DC)	Temperature characteristics	Capacitance	Capacitance tolerance
TVS021CG0R2□K-W	25V	C0G	0.2pF	
TVS021CG0R3□K-W	25V	C0G	0.3pF	
TVS021CG0R4□K-W	25V	C0G	0.4pF	
TVS021CG0R5□K-W	25V	C0G	0.5pF	
TVS021CG0R6□K-W	25V	C0G	0.6pF	
TVS021CG0R7□K-W	25V	C0G	0.7pF	
TVS021CGR75 IK-W	25V	C0G	0.75pF	
TVS021CG0R8□K-W	25V	C0G	0.8pF	
TVS021CG0R9□K-W	25V	C0G	0.9pF	A/B/C
TVS021CG010□K-W	25V	C0G	1.0pF	
TVS021CG1R1□K-W	25V	C0G	1.1pF	
TVS021CG1R2□K-W	25V	C0G	1.2pF	±0.05pF ±0.1pF
TVS021CG1R3□K-W	25V	C0G	1.3pF	±0.1pr ±0.25pF
TVS021CG1R4□K-W	25V	C0G	1.4pF	±0.25pf
TVS021CG1R5□K-W	25V	C0G	1.5pF	
TVS021CG1R6□K-W	25V	C0G	1.6pF	
TVS021CG1R7□K-W	25V	C0G	1.7pF	
TVS021CG1R8□K-W	25V	C0G	1.8pF	
TVS021CG1R9□K-W	25V	C0G	1.9pF	
TVS021CG020□K-W	25V	C0G	2.0pF	
TVS021CG2R1□K-W	25V	C0G	2.1pF	
TVS021CG2R2□K-W	25V	C0G	2.2pF	
TVS021CG2R3□K-W	25V	C0G	2.3pF	

Parts number	Rated voltage (DC)	Temperature characteristics	Capacitance	Capacitance tolerance
TVS021CG2R4□K-W	25V	C0G	2.4pF	
TVS021CG2R5□K-W	25V	C0G	2.5pF	A/B/C
TVS021CG2R6□K-W	25V	C0G	2.6pF	$\pm 0.05 \mathrm{pF}$
TVS021CG2R7□K-W	25V	C0G	2.7pF	$\pm 0.1 \mathrm{pF}$
TVS021CG2R8□K-W	25V	C0G	2.8pF	$\pm 0.25 \mathrm{pF}$
TVS021CG2R9□K-W	25V	C0G	2.9pF	
TVS021CG030□K-W	25V	C0G	3.0pF	
TVS021CG3R1□K-W	25V	C0G	3.1pF	
TVS021CG3R2□K-W	25V	C0G	3.2pF	
TVS021CG3R3□K-W	25V	C0G	3.3pF	
TVS021CG3R4DK-W	25V	C0G	3.4pF	
TVS021CG3R5□K-W	25V	C0G	3.5pF	
TVS021CG3R6□K-W	25V	C0G	3.6pF	
TVS021CG3R7□K-W	25V	C0G	3.7pF	
TVS021CG3R8□K-W	25V	C0G	3.8pF	
TVS021CG3R9□K-W	25V	C0G	3.9pF	
TVS021CG040□K-W	25V	C0G	4.0pF	
TVS021CG4R1□K-W	25V	C0G	4.1pF	
TVS021CG4R2□K-W	25V	C0G	4.2pF	
TVS021CG4R3□K-W	25V	C0G	4.3pF	B/C/D
TVS021CG4R4□K-W	25V	C0G	4.4pF	$\pm 0.1 \text{pF}$
TVS021CG4R5□K-W	25V	C0G	4.5pF	±0.25pF
TVS021CG4R6□K-W	25V	C0G	4.6pF	±0.5pF
TVS021CG4R7□K-W	25V	C0G	4.7pF	
TVS021CG4R8□K-W	25V	C0G	4.8pF	
TVS021CG4R9□K-W	25V	C0G	4.9pF	
TVS021CG050□K-W	25V	C0G	5.0pF	
TVS021CG5R1□K-W	25V	C0G	5.1pF	
EVS021CG5R2□K-W	16V	C0G	5.2pF	
EVS021CG5R3□K-W	16V	C0G	5.3pF	
EVS021CG5R4DK-W	16V	C0G	5.4pF	
EVS021CG5R5□K-W	16V	C0G	5.5pF	
EVS021CG5R6□K-W	16V	C0G	5.6pF	
EVS021CG5R7□K-W	16V	C0G	5.7pF	
EVS021CG5R8□K-W	16V	C0G	5.8pF	
EVS021CG5R9□K-W	16V	C0G	5.9pF	

Parts number	Rated voltage (DC)	Temperature characteristics	Capacitance	Capacitance tolerance
EVS021CG060DK-W	16V	C0G	6.0pF	
EVS021CG6R1□K-W	16V	C0G	6.1pF	
EVS021CG6R2□K-W	16V	C0G	6.2pF	
EVS021CG6R3□K-W	16V	C0G	6.3pF	
EVS021CG6R4□K-W	16V	C0G	6.4pF	
EVS021CG6R5□K-W	16V	C0G	6.5pF	
EVS021CG6R6□K-W	16V	C0G	6.6pF	
EVS021CG6R7□K-W	16V	C0G	6.7pF	
EVS021CG6R8□K-W	16V	C0G	6.8pF	
EVS021CG6R9□K-W	16V	C0G	6.9pF	
EVS021CG070□K-W	16V	C0G	7.0pF	
EVS021CG7R1□K-W	16V	C0G	7.1pF	
EVS021CG7R2□K-W	16V	C0G	7.2pF	
EVS021CG7R3□K-W	16V	C0G	7.3pF	
EVS021CG7R4□K-W	16V	C0G	7.4pF	
EVS021CG7R5□K-W	16V	C0G	7.5pF	
EVS021CG7R6□K-W	16V	C0G	7.6pF	B/C/D
EVS021CG7R7□K-W	16V	C0G	7.7pF	±0.1pF
EVS021CG7R8□K-W	16V	C0G	7.8pF	±0.25pF
EVS021CG7R9□K-W	16V	C0G	7.9pF	$\pm 0.5 pF$
EVS021CG080□K-W	16V	C0G	8.0pF	
EVS021CG8R1□K-W	16V	C0G	8.1pF	
EVS021CG8R2□K-W	16V	C0G	8.2pF	
EVS021CG8R3□K-W	16V	C0G	8.3pF	
EVS021CG8R4□K-W	16V	C0G	8.4pF	
EVS021CG8R5□K-W	16V	C0G	8.5pF	
EVS021CG8R6□K-W	16V	C0G	8.6pF	
EVS021CG8R7□K-W	16V	C0G	8.7pF	
EVS021CG8R8□K-W	16V	C0G	8.8pF	
EVS021CG8R9□K-W	16V	C0G	8.9pF	
EVS021CG090□K-W	16V	C0G	9.0pF	
EVS021CG9R1□K-W	16V	C0G	9.1pF	
EVS021CG9R2□K-W	16V	C0G	9.2pF	
EVS021CG9R3□K-W	16V	C0G	9.3pF	
EVS021CG9R4□K-W	16V	C0G	9.4pF	
EVS021CG9R5□K-W	16V	C0G	9.5pF	

Parts number	Rated voltage (DC)	Temperature characteristics	Capacitance	Capacitance tolerance
EVS021CG9R6□K-W	16V	C0G	9.6pF	B/C/D
EVS021CG9R7□K-W	16V	C0G	9.7pF	$\pm 0.1 \mathrm{pF}$
EVS021CG9R8□K-W	16V	C0G	9.8pF	$\pm 0.25 \mathrm{pF}$
EVS021CG9R9□K-W	16V	C0G	9.9pF	$\pm 0.5 \mathrm{pF}$
EVS021CG100□K-W	16V	C0G	10pF	G/J,±2%/5%