ULTRA-LOW ESR NP0 CAPACITORS

KGU SERIES

Click Here to View the KGU Series Datasheet

BASIC OVERVIEW

KYOCERA AVX continues to expand its RF product portfolio with the new KGU series. These multilayer ceramic capacitors feature tight tolerance, high Q, high self-resonance frequency and low equivalent series resistance all in a small case size.

The KGU Series NP0 capacitors are designed for a wide range of frequencies and RF applications.

GENERAL CHARACTERISTICS

"KGU" Series capacitors are C0G (NP0) chip capacitors specially designed for "Ultra" low ESR for applications in the communications market. Sizes available are EIA chip sizes 01005 through 0805. This series also features high self-resonance frequencies and base metal electrodes (BME).

The KGU Series can be utilized in a wide range of circuit applications such as matching, tuning, coupling, and DC blocking.

APPLICATIONS

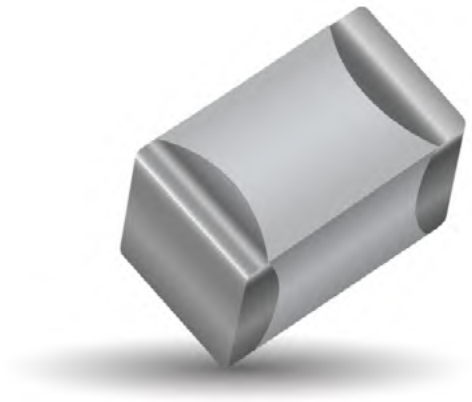
- Cellular Base Stations
- Satellite Communications
- Broadband Wireless Services
- Wi-Fi (802.11)
- Filter and Matching Networks

KEY SPECIFICATIONS

- Sizes: 01005 – 0805
- Rated Voltage: 16V – 250V
- Capacitance: 0.1 – 100 pF
- Tolerance: as low as ± 0.05 pF
- Operating Temperature: -40°C to +125°C

TOP SELLING POINTS / CHARACTERISTICS

- Copper Internal Electrodes
- NP0 Temperature Characteristic (± 30 ppm/°C)
- Ultra-Low Equivalent Series Resistance (ESR)
- Small, Standard EIA, case sizes with Tight Tolerance
- Easy installation



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HOW TO ORDER

KGU	02	A	CG	1C	100	J	H
Series	**Size**	**Thickness**	**Dielectric**	**Voltage**	**Capacitance Code**	**Tolerance**	**Packaging**
General Purpose Tin/ Nickel Finish	02 = 01005 05 = 0402 15 = 0603 21 = 0805	See Cap Chart	C0G=CG	1C = 16V 1E = 25V 2A = 100v 2D = 200V 2E = 250V	Two Significant Digits + Number of Zeroes eg. 10µF = 106 10nF = 103 47pF = 470	A = ±.05 pF (<10pF) B = ±.10 pF (<10pF) C = ±.25 pF (<10pF) D = ±.50 pF (<10pF) F = ±1% (≥10pF) G = ±2% (≥10pF) J = ±5% (≥10pF) K = ±10% (≥10pF) M = +/- 20%	See Table Below RoHS COMPLIANT

ENVIRONMENTAL CHARACTERISTICS

Themal Shock	5 Cycles, -55°C to 125°C
Life Test	1000 hours at 125°C at 2X
Solderability	Solder Coverage > 90% of end termination
Terminal Strength	2 lbs. typ., 1 lb. min.

ELECTRICAL SPECIFICATIONS

Quality Factor	C < 30pf ≥ 800 + 20X CAP @ 1MHz C ≥ 30pf ≥ 1500 @ 1MHz
Insulation Resistance (IR)	10^5 Megohms min. @ 25°C at rated WVDC 10^4 Megohms min. @ 125°C at rated WVDC
Dielectric Withstanding Voltage (DWV)	250% of rated WVDC for 5 seconds
Aging Effects	None
Piezoelectric Effects	None

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