



Safety Capacitors

KGK (X1/Y2) & KGH (X2) SERIES

[Click Here to View More KYOCERA AVX Capacitors](#)

KEY SPECIFICATIONS

Operating Temperature: -55 to +125°C
 Rated Voltage: 250Vac
 Dielectric: C0G, X7R
 Case Size: 1808, 1812, 2211, 2200 (X7R only)

APPLICATIONS

- Power Supply
- Charging Station
- 5G Base Station
- Other electronic equipment for lighting or surge protection and isolation

TOP SELLING POINTS & FEATURES

- High reliability and stability
- Small size and high capacitance
- RoHS Compliant
- Safety standard approval by:
 - EN 60384-14: 2013
 - IEC 60384-14: 2013
 - UL 60384-14 (Ed 2.0)
- HALOGEN Compliant
- The terminations are composed of plated nickel and pure tin to feature the superior leaching resistance during soldering.

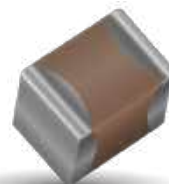
HOW TO ORDER

KGK	42	G	CG	3H	3R0	C	Y	-
Series KGK = X1/Y2 KGH = X2	Size 42 = 1808 43 = 1812 58 = 2211 55 = 22202	Thickness See Cap Chart	Dielectric CG = C0G R7 = X7R	Impulse Voltage 3E = 2.5kV 3H = 5.0kV 3T = 6.0kV	Capacitance Code (in pF) 2 Significant Digits +Number of Zeros eg. 10µF = 106 10nF = 103 47pF = 470	Capacitance Tolerance C = ±0.25pF D = ±0.50pF J = ±5% K = ±10%	Packaging See Table Below	Optimal Code Blank = Standard Safety Capacitor 1A = Flexiterm 2A = Anti Arcing with Flexiterm 3A = Anti Arcing

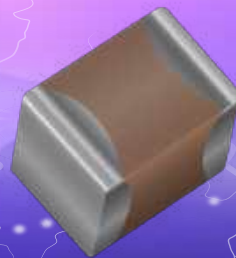


PACKAGING CODES

Code	EIA (inch)	IEC (mm)	7" Embossed	13" Embossed
42	1808	4520	Y	K
43	1812	4532	V	S
58	2211	5728	V	S
55	2220	5720	V	S



Dielectric	COG		X7R						
Size	1808, 1812, 221		1808, 1812, 221, 2220						
Rated Voltage	250Vac								
Capacitance Range	X1/Y2 Class (Impulse 6KV): 4pF ~ 100pF X1/Y2 Class (Impulse 5K): 3pF ~ 720pF X2 Class: 3pF ~ 1000pF		X1/Y2 Class: 100pF ~ 4700pF X2 Class: 150pF ~ 56000pF						
Capacitance Tolerance	<table border="1"> <thead> <tr> <th>Cap. Range</th> <th>Tolerance Spec.</th> </tr> </thead> <tbody> <tr> <td>C < 10pF</td> <td>A ($\pm 0.05\text{pF}$), B ($\pm 0.1\text{pF}$), C ($\pm 0.25\text{pF}$), D ($\pm 0.5\text{pF}$)</td> </tr> <tr> <td>C \geq</td> <td>F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), M ($\pm 20\%$)</td> </tr> </tbody> </table>		Cap. Range	Tolerance Spec.	C < 10pF	A ($\pm 0.05\text{pF}$), B ($\pm 0.1\text{pF}$), C ($\pm 0.25\text{pF}$), D ($\pm 0.5\text{pF}$)	C \geq	F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), M ($\pm 20\%$)	M ($\pm 20\%$)
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	Cap. Range	Q Spec.							
	C < 30pF	Q $\geq 400 + 20C$							
C $\geq 30\text{pF}$	Q ≥ 1000								
Measured at: 30 ~ 70% Related Humidity									
Test Condition	For 25°C at ambient temperature		Preconditioning for Class II MLCC: Perform a heat treatment at 150 \pm 10°C for 1 hour, then leave in ambient conditions for 24 \pm 2 hours before measurement						
	<table border="1"> <thead> <tr> <th>Cap. Range</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>Cap. $\leq 1000\text{pF}$</td> <td>1.0 \pm 0.2V_{rms}, 1.0MHz $\pm 10\%$</td> </tr> <tr> <td>Cap. $> 1000\text{pF}$</td> <td>1.0 \pm 0.2V_{rms}, 1.0MHz $\pm 10\%$</td> </tr> </tbody> </table>		Cap. Range	Frequency	Cap. $\leq 1000\text{pF}$	1.0 \pm 0.2V _{rms} , 1.0MHz $\pm 10\%$	Cap. $> 1000\text{pF}$	1.0 \pm 0.2V _{rms} , 1.0MHz $\pm 10\%$	1.0 \pm 0.2V _{rms} , 1.0KHz $\pm 10\%$, at 25°C ambient temperature
	Cap. Range	Frequency							
Cap. $\leq 1000\text{pF}$	1.0 \pm 0.2V _{rms} , 1.0MHz $\pm 10\%$								
Cap. $> 1000\text{pF}$	1.0 \pm 0.2V _{rms} , 1.0MHz $\pm 10\%$								
Insulation Resistance	$\geq 100\text{G}\Omega$ or RxC $\geq 10000\Omega$ - F (Smaller Option)		$\geq 10\text{G}\Omega$ or RxC $\geq 500\Omega$ - F (Smaller Option)						
Operating Temperature	-55°C +125°C								
Temperature Coefficient	$\pm 30\text{ppm} / ^\circ\text{C}$		$\pm 15\%$						
Termination	Cu or Ag/Ni/Sn (Lead-Free Termination)								



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