



Safety Capacitors

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

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KEY SPECIFICATIONS

Operating Temperature: -55 to +125°C

Rated Voltage: 250Vac

Dielectric: C0G, X7R

Case Size: 1808, 1812, 2211, 2200 (X7R only)

APPLICATIONS

- Facsimile
- Modern
- Telephone
- Other electronic equipment for lighting or surge protection and isolation

TOP SELLING POINTS & FEATURES

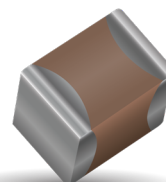
- High reliability and stability
- Small size and high capacitance
- RoHS Compliant
- Safety standard approval by:
 - EN 60384-14: 2013
 - IEC 60384-14: 2013
 - UL 60384-14 (Ed 2.0)
- HALOGEN Compliant
- The terminations are composed of plated nickel and pure tin to feature the superior leaching resistance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

HOW TO ORDER

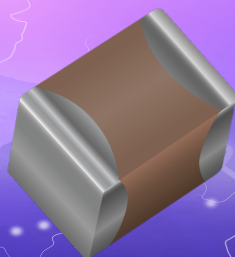
KGK	42	G	CG	3H	3R0	C	Y	-
Series KGK = X1/Y2 KGH = X2	Size 42 = 1808 43 = 1812 58 = 2211 55 = 2220	Thickness See Cap Chart	Dielectric CG = C0G R7 = X7R	Impulse Voltage 3E = 2.5kV 3H = 5.0kV 3L = 6.0kV	Capacitance Code (in pF) 2 Significant Digits +Number of Zeros eg. 10µF = 106 10nF = 103 47pF = 470	Capacitance Tolerance A = ±0.05pF B = ±0.10pF C = ±0.25pF D = ±0.50pF F = ±1% G = ±2% J = ±5% K = ±10% M = ±20%	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	C0G		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><tr><th>Cap. Range</th><th>Tolerance Spec.</th></tr><tr><td>C < 10pF</td><td>A (±0.05pF), B (±0.1pF), C (±0.25pF), D (±0.5pF)</td></tr><tr><td>C ≥</td><td>F(±1%), G(±2%), J(±5%), K(±10%), M(±20%)</td></tr></table>		Cap. Range	Tolerance Spec.	C < 10pF	A (±0.05pF), B (±0.1pF), C (±0.25pF), D (±0.5pF)	C ≥	F(±1%), G(±2%), J(±5%), K(±10%), M(±20%)	M(±20%)
Cap. Range	Tolerance Spec.								
C < 10pF	A (±0.05pF), B (±0.1pF), C (±0.25pF), D (±0.5pF)								
C ≥	F(±1%), G(±2%), J(±5%), K(±10%), M(±20%)								
Tan δ	<table><tr><th>Cap. Range</th><th>Q Spec.</th></tr><tr><td>C < 30pF</td><td>Q ≥ 400 + 20C</td></tr><tr><td>C ≥ 30pF</td><td>Q ≥ 1000</td></tr></table>		Cap. Range	Q Spec.	C < 30pF	Q ≥ 400 + 20C	C ≥ 30pF	Q ≥ 1000	≤2.5%
Cap. Range	Q Spec.								
C < 30pF	Q ≥ 400 + 20C								
C ≥ 30pF	Q ≥ 1000								
Capacitance & Tan δ	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 ± 10°C for 1 hour, then leave in ambient conditions for 24 ± 2 hours before measurement						
	<table><tr><th>Cap. Range</th><th>Frequency</th></tr><tr><td>Cap.≤1000pF</td><td>1.0±0.2Vrms, 1.0MHz±10%</td></tr><tr><td>Cap.>1000pF</td><td>1.0±0.2Vrms, 1.0MHz±10%</td></tr></table>		Cap. Range	Frequency	Cap.≤1000pF	1.0±0.2Vrms, 1.0MHz±10%	Cap.>1000pF	1.0±0.2Vrms, 1.0MHz±10%	1.0 ± 0.2V _{rms} , 1.0KHz ± 10%, at 25°C ambient temperature
	Cap. Range	Frequency							
Cap.≤1000pF	1.0±0.2Vrms, 1.0MHz±10%								
Cap.>1000pF	1.0±0.2Vrms, 1.0MHz±10%								
Insulation Resistance	≥100GΩ or RxC ≥1000Ω - F (Smaller Option)		≥10GΩ or RxC ≥500Ω - F (Smaller Option)						
Operating Temperature	-55°C +125°C								
Temperature Coefficient	±30ppm / °C		±15%						
Termination	Cu or Ag/Ni/Sn (Lead-Free Termination)								



NORTH AMERICA

Zack Kozawa
Marketing Manager

TEL: +1 (864)-414-7114
Email: zack.kozawa@kyocera-avx.com

EUROPE

Gordon Hoey
Senior Marketing Manager

TEL: +06-38-37-87-59
Email: gordon.hoey@kyocera-avx.com

ASIA

Mark Dong
Marketing Manager

TEL: +86-21-3255-1833
Email: xiabing_dong@kyocera.com.cn