

578-241 $\xrightarrow{70}$ 578-320



COMPONENTS

Classifications

Kyocera Ceramic Chip Capacitors are available for different applications as classified below:

Series	Dielectric	Application	Features	Terminations	Available Size (EIA)
CM	COG (NPO) X7R Y5V NTC*	General Purpose	Wide Cap Range	Nickel Barrier	0402, 0603, 0805 1206, 1210
				Silver Palladium	0603, 0805, 1206 1210, 1812, 2220
CF	COG (NPO) X7R	High Voltage & Power Circuits	High Voltage 500V 1000V 2000V 3000V	Nickel Barrier	1206, 1210, 1808 1812, 2208
				Silver Palladium	1206, 1210, 1808 1812, 2208, 2220
CT	COG (NPO) X7R Y5V	PLCC (Decoupling)	Low Profile See Page 18	Nickel Barrier	0805, 1206, 1210
				Silver Palladium	
DN	COG (NPO) U (N750) X7R Y5V	Automotive	Thermal shock Resistivity High Reliability	Silver Palladium	0805, 1206, 1210 1812, 2220

NOTE:

*NTC: Negative Temperature Coefficient types are available on request as shown below.

PA (N150), RA (N220), SA (N330), TA (N470) & UA (N750) Details are shown on Page 27

Ordering Information

KYOCERA PART NUMBER:

CM	21	X7R	103	K	50	A	T
----	----	-----	-----	---	----	---	---

SERIES CODE

See Page 1

SIZE CODE

See Page 3

SIZE	EIACODE	SIZE	EIA CODE
05	= 0402	32	= 1210
105	= 0603	42	= 1808
21	= 0805	43	= 1812
316	= 1206	52	= 2208
		55	= 2220

DIELECTRIC CODE

See Page 27

CODE	=	EIA CODE
CG	=	COG (NPO)
X7R	=	X7R
Y5V	=	Y5V

Negative dielectric types are available on request.

CAPACITANCE CODE

Capacitance Expressed In pF. 2 Significant Digits and Number of Zeros in pF.

For Values < 10pF, Letter R Denote Decimal Point.

e.g. 100000pF = 104 33pF = 330
 100nF = 104 1.5pF = 1R5
 0.1µF = 104 0.5pF = R50
 4700pF = 472

TOLERANCE CODE

See Page 4 for explanation and availability

VOLTAGE CODE

10	=	10VDC	200	=	200VDC
16	=	16VDC	500	=	500VDC
25	=	25VDC	1000	=	1000VDC
50	=	50VDC	2000	=	2000VDC
100	=	100VDC	3000	=	3000VDC

TERMINATION CODE

A = Nickel Barrier B = Silver Palladium

PACKAGING CODE

- B = Bulk
- C = Bulk Case, See Page 21, 22
- T = 7" Reel Taping & 4mm Cavity pitch
- L = 13" Reel Taping & 4mm Cavity pitch
- H = 7" Reel Taping & 2mm Cavity pitch. See Page 5
- N = 13" Reel Taping & 2mm Cavity pitch. See Page 5

Available Tolerances

Dielectric materials, capacitance values and tolerances are available in the following combinations only:

EIA DIELECTRIC	AVAILABLE TOLERANCE	CAPACITANCE		TOLERANCE CODE
*1 COG NTC	$\pm 0.25\text{pF}, \pm 0.5\text{pF}$	$\leq 10\text{pF}$	*2	*3 B = $\pm 0.1\text{pF}$ C = $\pm 0.25\text{pF}$ D = $\pm 0.5\text{pF}$ F = $\pm 1\%$ G = $\pm 2\%$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$ Z = -20 to $+80\%$
	$\pm 1\%$	$> 10\text{pF}$	E-12 Series	
	$\pm 2\%$			
	$\pm 5\%, \pm 10\%, \pm 20\%$			
X7R	*4 $\pm 10\%, \pm 20\%$	E-6 Series		
Y5V	-20% to $+80\%$	E-3 Series		

NOTE:

*1 NTC : Negative Temperature Coefficient types are available on request as shown on page 27

*2 Nominal values below 10pF are available in the standard values of 0.5pF, 1.0pF, 1.5pF, 2.0pF, 3.0pF, 4.0pF, 5.0pF, 6.0pF, 7.0pF, 8.0pF, 9.0pF, 10pF.

*3 B= $\pm 0.1\text{pF}$ is available for 5pF and below on request.

*4 J= $\pm 5\%$ for X7R is available on request.