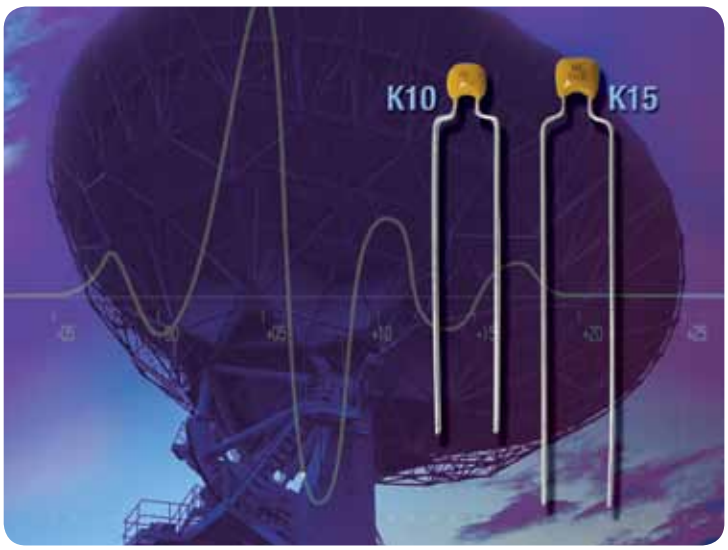
Capacitors - High Capacitance in Small Size

K10 Series Multilayer Ceramic Dipped Radial Capacitors



KEY BENEFITS

- High capacitance in small size
- Cost effective solution
- Compliant to RoHS Directive 2011/65/EU, and REACH Regulation EC 1907/2006

KEY SPECIFICATIONS

- Capacitance range: Class 1 C0G range 10 pF to 1 nF;
  Class 2 X7R range 100 pF to 100 nF; Class 2 Y5V range 10 nF to 150 nF
- Dielectric strength: 250 % of rated voltage
- Insulation resistance: ≥ 10 000 MΩ
- IEC 60384-9 Class 2
- IEC 60384-8 Class 1 and EIA 198
- Operating Temperature: C0G, X7R: - 55 °C to + 125 °C; Y5V: - 30 °C to + 85 °C

APPLICATIONS

- Bypassing
- Coupling/decoupling
- Signal comparison

RESOURCES

- Datasheet: Mono-Kap® - http://www.vishay.com/doc?45183
- For technical questions contact cmll@vishay.com

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Dipped Radial Multilayer Ceramic K10 Capacitors

C0G (NP0) DIELECTRIC			
SIZE		10	
RATED VOLTAGE		50	100
VALUE	CODE		
10 pF	100	•	•
12 pF	120	•	•
15 pF	150	•	•
18 pF	180	•	•
22 pF	220	•	•
27 pF	270	•	•
33 pF	330	•	•
39 pF	390	•	•
47 pF	470	•	•
56 pF	560	•	•
68 pF	680	•	•
82 pF	820	•	•
100 pF	101	•	•
120 pF	121	•	•
150 pF	151	•	•
180 pF	181	•	•
220 pF	221	•	•
270 pF	271	•	•
330 pF	331	•	•
390 pF	391	•	•
470 pF	471	•	•
560 pF	561	•	•
680 pF	681	•	
820 pF	821	•	
1000 pF	102	•	
1200 pF	122		
1500 pF	152		
1800 pF	182		
2200 pF	222		
2700 pF	272		
3300 pF	332		
3900 pF	392		
4700 pF	472		
5600 pF	562		
6800 pF	682		
8200 pF	822		
0.01 µF	103		

X7R DIELECTRIC			
SIZE		10	
RATED VOLTAGE		50	100
VALUE	CODE		
100 pF	101	•	•
120 pF	121	•	•
150 pF	151	•	•
180 pF	181	•	•
220 pF	221	•	•
270 pF	271	•	•
330 pF	331	•	•
390 pF	391	•	•
470 pF	471	•	•
560 pF	561	•	•
680 pF	681	•	•
820 pF	821	•	•
1000 pF	102	•	•
1200 pF	122	•	•
1500 pF	152	•	•
1800 pF	182	•	•
2200 pF	222	•	•
2700 pF	272	•	•
3300 pF	332	•	•
3900 pF	392	•	•
4700 pF	472	•	•
5600 pF	562	•	•
6800 pF	682	•	•
8200 pF	822	•	•
0.01 µF	103	•	•
0.012 µF	123	•	
0.015 µF	153	•	
0.018 µF	183	•	
0.022 µF	223	•	
0.027 µF	273	•	
0.033 µF	333	•	
0.039 µF	393	•	
0.047 µF	473	•	
0.056 µF	563	•	
0.068 µF	683	•	
0.082 µF	823	•	
0.10 µF	104	•	
0.12 µF	124		
0.15 µF	154		
0.22 µF	224		
0.33 µF	334		
0.47 µF	474		
0.68 µF	684		
1.0 µF	105		

Y5V DIELECTRIC		
SIZE		10
RATED VOLTAGE		50
VALUE	CODE	
0.01 µF	103	•
0.015 µF	153	•
0.022 µF	223	•
0.033 µF	333	•
0.047 µF	473	•
0.068 µF	683	•
0.10 µF	104	•
0.15 µF	154	•
0.22 µF	224	
0.33 µF	334	
0.47 µF	474	
0.68 µF	684	
1.0 µF	105	

QUICK REFERENCE DATA					
DESCRIPTION	VALUE				
Capacitance range	10 pF to 1000 pF		100 pF to 0.1 µF		0.01 µF to 0.15 µF
Rated DC voltage	50 V	100 V	50 V	100 V	50 V
Tolerance on capacitance	± 5 %, ± 10 %		± 10 %, ± 20 %		+ 80 %/- 20 %
Dielectric Code	C0G (NP0)		X7R		Y5V

ORDERING INFORMATION

K	103	K	10	X7R	F	5	3	H	5
PRODUCT TYPE	CAPACITANCE CODE	CAPACITANCE TOLERANCE	SIZE CODE	TEMP. CHAR.	RATED VOLTAGE	LEAD DIA.	LEAD LENGTH/ PACKAGING	LEAD STYLE	LEAD SPACING
K = Mono-Kap	Two significant digits followed by the number of zeros. For example: 103 = 10 000 pF	J = ± 5 % K = ± 10 % M = ± 20 % Z = + 80%/- 20 %	Ref. mech. spec.	C0G X7R Y5V	F = 50 V_{DC} H = 100 V_{DC}	5 = 0.5 mm (0.020")	3 = Bulk, with lead length of 30 ± 5.0 mm (1.25") T = Tape and reel U = Ammopack	L = Straight Lead H = High seated assy	2 = 2.5 (0.100") 5 = 5.0 (0.200")

Ordering Example: K-103-K-10-X7R-F-5-3-H-5

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