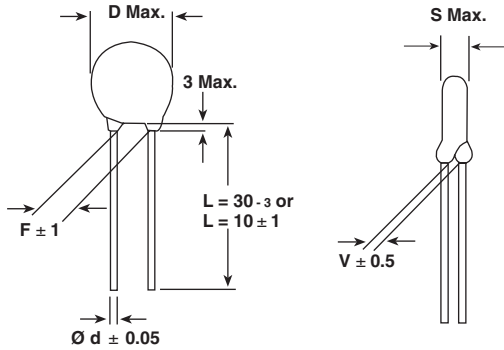


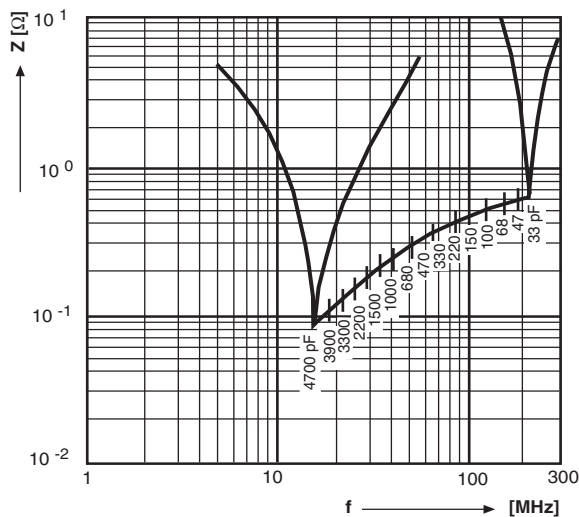
Ceramic AC Capacitors

Class X1, 440 V_{AC}/Class Y2, 300 V_{AC}

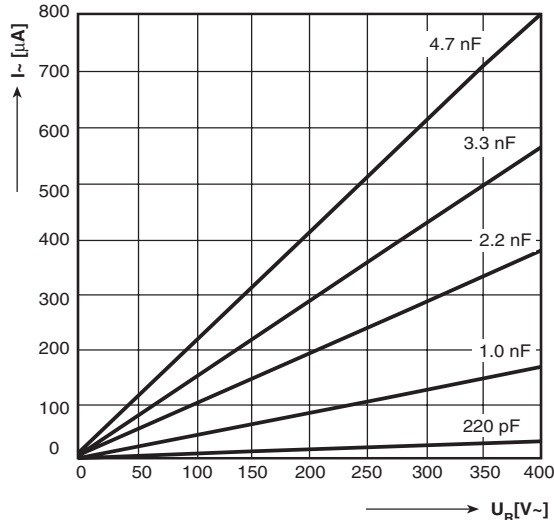


• Dimensions in mm

Impedance (Z) as a function of frequency (f) at Ta = 20 °C (average). Measurement with lead length 50 mm.



I = f (U_R) (typ.)



DESIGN:

Disc capacitors with epoxy coating



RoHS
COMPLIANT

RATED VOLTAGE U_R:

- (X1): 440 V_{AC}, 50 Hz (IEC 60384-14.2)
- (Y2): 300 V_{AC}, 50 Hz (IEC 60384-14.2)
- 250 V_{AC}, 60 Hz (UL1414, CSA C22.2)

DIELECTRIC STRENGTH BETWEEN LEADS:

- Component test:
- 2600 V_{AC}, 50 Hz, 2 s
- As repeated test admissible only once with
- 2340 V_{AC}, 50 Hz, 2 s
- Random sampling test (destructive test):
- 2600 V_{AC}, 50 Hz, 60 s

DIELECTRIC STRENGTH OF BODY INSULATION:

- 2600 V_{AC}, 50 Hz, 60 s (destructive test)

DISSIPATION FACTOR tan δ:

≤ 25 • 10⁻³

INSULATION RESISTANCE R_{is}:

≥ 6 • 10⁹ Ω

CATEGORY TEMPERATURE RANGE θ_A:

(- 40 to + 125) °C

CLIMATIC CATEGORY ACC. TO EN60068-1:

40/125/21

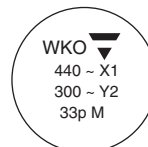
COATING:

Epoxy, dipped, insulating, flame retarding acc. to UL 94V-0

TAPING AND SPECIAL LEAD CONFIGURATIONS:

On request

MARKING:



WKO 33 pF to 1.0 nF

WKO 1.5 nF to 4.7 nF

All approval marks are also shown on the label.



Ceramic AC Capacitors
Class X1, 440 V_{AC}/Class Y2, 300 V_{AC}

Vishay Draloric

ORDERING INFORMATION, CERAMIC X1 / Y2 CAPACITORS WKO						
CAPACITANCE** (pF)	TOL. (%)	D x s (mm)	F ± 1* (mm)	d ± 0.05* (mm)	V ± 0.5* (mm)	ORDERING CODE
CLASS 1 N750						
33	± 10 %, ± 20 %	8.0 x 5.0	7.5	0.6	1.6	WKO330□CP□□□KR
47		8.0 x 5.0				WKO470□CP□□□KR
CLASS 2 K1200						
68	± 10 %, ± 20 %	8.0 x 5.0	7.5	0.6	1.9	WKO680□CP□□□KR
CLASS 2 K1500						
100	± 10 %, ± 20 %	8.0 x 5.0	7.5	0.6	1.9	WKO101□CP□□□KR
CLASS 2 K2000						
150	± 10 %, ± 20 %	8.0 x 5.0	7.5	0.6	1.9	WKO151□CP□□□KR
220		8.0 x 5.0				WKO221□CP□□□KR
330		8.0 x 5.0				WKO331□CP□□□KR
CLASS 2 K4000						
470	± 10 %, ± 20 %	8.0 x 5.0	7.5	0.6	2.0	WKO471□CP□□□KR
680		9.0 x 5.0				WKO681□CP□□□KR
1000		10.0 x 5.0				WKO102□CP□□□KR
1500		12.0 x 5.0		0.8	1.6	WKO152□CP□□□KR
2200		13.0 x 5.0				WKO222□CP□□□KR
3300		15.0 x 5.0				WKO332□CP□□□KR
3900		16.0 x 5.0		WKO392□CP□□□KR		
4700		18.0 x 5.0		12.5	WKO472□CP□□□KR	

* Standard lead configuration, other lead spacing and diameter available on request.

** Capacitance values from 1000 pF to 4700 pF: The alternative usage of smaller WKO series is recommended for new application.

ORDERING CODE			
□	7th digit	Capacitance Tolerance:	± 10 % = K ± 20 % = M
□□□	10th to 12th digit	Lead Configuration (see General Information)	
R	14th digit	RoHS Compliant Component	

APPROVALS						
IEC 60384 - 14 / 2nd Issue (1993) incl. Am. 1 (1995) - Safety Tests						
EN 132 400 (1994) - Safety Tests						
That approval together with the CB Test Certificate substitutes the national approval of the following nations:						
Belgium	France	Italy	Austria	China	Japan	Spain
Denmark	Greece	Luxembourg	Portugal	Singapore	Poland	United Kingdom
Germany	Ireland	Netherlands	Sweden	Slovenia	Hungaria	Czech Republic
Finland	Iceland	Norway	Switzerland	Korea	Israel	
Y2 - Capacitor: CB-Test Certificate: DE-1-11134-A1				33 pF ... 4.7 nF	300 Vac	
X1 - Capacitor: CB-Test Certificate: DE-1-11134-A1				33 pF ... 4.7 nF	440 Vac	
Minimum thickness of insulation: 0.4 mm						
Underwriters Laboratories Inc.						
UL 1414	Line-by-pass component.			33 pF ... 4.7 nF	250 Vac	
	Agency Files / Licences			E 183 844 V1 S3		
Canadian Standards Association						
CSA C22.2	Line-by-pass component.			33 pF ... 4.7 nF	250 Vac	
No 1-98	Agency Files / Licences			E 183 844 V1 S3		

ORDERING INFORMATION						
WKO	392	K	CP	CJ0	K	R
SERIES	CAP. VALUE	TOLERANCE	RATED VOLTAGE	LEAD CONFIGURATION	INTERNAL CODE	RoHS COMPLIANT



Notice

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.