

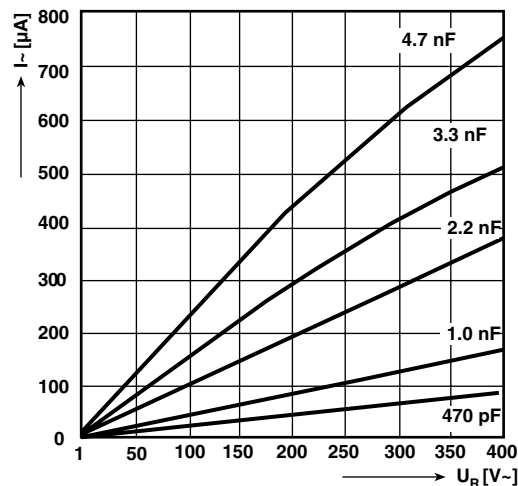
Ceramic AC Capacitors Class X1, 760 V_{AC}/Class Y1, 500 V_{AC}



Dimensions in mm

Note

Impedance (Z) as a function of frequency (f) at T_a = 20 °C (average).
Measurement with lead length 6 mm.



DESIGN

Disc capacitors with epoxy coating

RATED VOLTAGE U_R

- (X1): 760 V_{AC}, 50 Hz (IEC 60384-14.2)
- (Y1): 500 V_{AC}, 50 Hz (IEC 60384-14.2)
- 250 V_{AC}, 60 Hz (UL1414, CSA C22.2)

DIELECTRIC STRENGTH BETWEEN LEADS

- Component test:
4000 V_{AC}, 50 Hz, 2 s
- As repeated test admissible only once with:
3600 V_{AC}, 50 Hz, 2 s
- Random sampling test (destructive test):
4000 V_{AC}, 50 Hz, 60 s

DIELECTRIC STRENGTH OF BODY INSULATION

4000 V_{AC}, 50 Hz, 60 s (destructive test)

DISSIPATION FACTOR tan δ

≤ 25 x 10⁻³

INSULATION RESISTANCE R_{IS}

≥ 10 x 10⁹ Ω

CATEGORY TEMPERATURE RANGE θ_A

(- 40 to + 125) °C

CLIMATIC CATEGORY ACC. TO EN60068-1

40/125/21

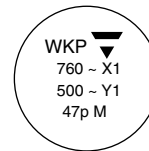
COATING

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

TAPING AND SPECIAL LEAD CONFIGURATIONS

On request

MARKING



WKP 33 pF to 1.5 nF

WKP 2.2 nF to 4.7 nF

Note

- All approval marks are also shown on the label.

| ORDERING INFORMATION, CERAMIC X1/Y1 CAPACITORS WKP | | | | | | | | | |
|---|-------------|---------------|------------------------------|---------------------------------|--------------------------------|----------------|-----|-----|----------------|
| CAPACITANCE ⁽²⁾ (pF) | TOL. (%) | D x s (mm) | F ± 1 ⁽¹⁾ (mm) | d ± 0.05 ⁽¹⁾ (mm) | V ± 0.5 ⁽¹⁾ (mm) | ORDERING CODE | | | |
| CLASS 1 N 750 | | | | | | | | | |
| 33 | ± 10 , ± 20 | 8.0 x 6.0 | 12.5 | 0.6 | 1.9 | WKP330□CP□□□KR | | | |
| CLASS 2 K 1200 | | | | | | | | | |
| 47 | ± 10 , ± 20 | 8.0 x 6.0 | 12.5 | 0.6 | 2.3 | WKP470□CP□□□KR | | | |
| 68 | | | | | | WKP680□CP□□□KR | | | |
| CLASS 2 K 1500 | | | | | | | | | |
| 100 | ± 10 , ± 20 | 8.0 x 6.0 | 12.5 | 0.6 | 2.3 | WKP101□CP□□□KR | | | |
| CLASS 2 K 2000 | | | | | | | | | |
| 150 | ± 10 , ± 20 | 8.0 x 6.0 | 12.5 | 0.6 | 2.3 | WKP151□CP□□□KR | | | |
| 220 | | | | | | WKP221□CP□□□KR | | | |
| CLASS 2 K 4000 | | | | | | | | | |
| 330 | ± 10 , ± 20 | 8.0 x 6.0 | 12.5 | 0.6 | 2.5 | WKP331□CP□□□KR | | | |
| 470 | | 9.0 x 6.0 | | | | WKP471□CP□□□KR | | | |
| 680 | | | | | | WKP681□CP□□□KR | | | |
| 1000 | | | | | | 10.0 x 6.0 | 0.8 | 2.7 | WKP102□CP□□□KR |
| 1500 | | | | | | 12.0 x 6.0 | | | WKP152□CP□□□KR |
| 2200 | | | | 13.0 x 6.0 | WKP222□CP□□□KR | | | | |
| 3300 | | 15.0 x 6.0 | | WKP332□CP□□□KR | | | | | |
| 3900 | | 16.0 x 6.0 | | WKP392□CP□□□KR | | | | | |
| 4700 | | 18.0 x 6.0 | | WKP472□CP□□□KR | | | | | |

Notes

⁽¹⁾ Standard lead configuration, other lead spacing and diameter available on request.

⁽²⁾ Capacitance values from 470 pF to 4700 pF: The alternative usage of smaller VKP series is recommended for new application.

| ORDERING CODE | | | |
|----------------------|--|--|--------------------------|
| □ | 7 th digit | Capacitance Tolerance: | ± 10 % = K ± 20 % = M |
| □□□ | 10 th to 12 th digit | Lead Configuration (see General Information) | |
| R | 14 th 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 | | | | | | |
| Belgium | France | Italy | Austria | China | Japan | Spain |
| Denmark | Greece | Luxembourg | Portugal | Singapore | Poland | United |
| Germany | Ireland | Netherlands | Sweden | Slovenia | Hungaria | Czech Republic |
| Finland | Iceland | Norway | Switzerland | Korea | Israel | |
| Y1 - Capacitor: CB-Test Certificate: DE-1-11002-A1 | | | | 33 pF ... 4.7 nF | 500 V _{AC} |  |
| X1 - Capacitor: CB-Test Certificate: DE-1-11002-A1 | | | | 33 pF ... 4.7 nF | 760 V _{AC} | |
| Minimum thickness of insulation: 0.4 mm | | | | | | |
| UNDERWRITERS LABORATORIES INC. | | | | | | |
| UL 1414 | Across-the-line, Antenna-coupling and Line-by-pass component. | | | 33 pF ... 4.7 nF | 250 V _{AC} |  |
| CANADIAN STANDARDS ASSOCIATION | | | | | | |
| CSA C22.2 | Across-the-line, antenna-coupling and line-by-pass component | | | 33 pF ... 4.7 nF | 250 V _{AC} |  |
| NO 1-98 | Agency Files / Licences | | | E 183 844 V1 S1 | | |

| ORDERING INFORMATION | | | | | | |
|-----------------------------|------------|-----------|---------------|--------------------|---------------|----------------|
| <u>WKP</u> | <u>221</u> | <u>M</u> | <u>CP</u> | <u>ED0</u> | <u>K</u> | <u>R</u> |
| SERIES | CAP. VALUE | TOLERANCE | RATED VOLTAGE | LEAD CONFIGURATION | INTERNAL CODE | ROHS COMPLIANT |



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «**JONHON**», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «**FORSTAR**».



JONHON

«**JONHON**» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«**FORSTAR**» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А