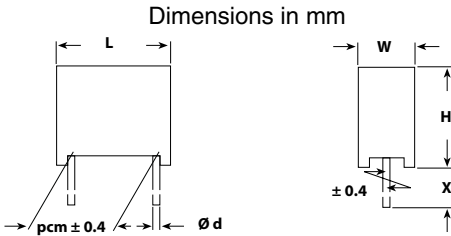
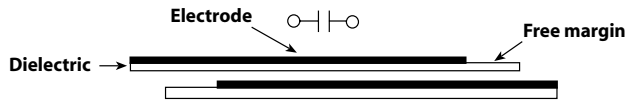


AC-Capacitors, Suppression Capacitors Class X2 AC 275 V (Code pos. 9 = 2) (MKP)



PCM (mm)	PITCH CODE Pos. 10	TERMINAL Ø d (mm)
10	D	0.6
15	F	0.8
22.5	I	0.8
27.5	K	0.8
37.5	P	0.8

LEAD LENGTH		ORDERING CODE**					
X (mm)	CODE POS. 11	1 - 4	5 - 7	8	9	10	11 - 13
4 ⁻¹	B	1778	...	.	2	.	B . 0
5 ⁻¹	M	1778	...	.	2	.	M . 0
6 ⁻¹	C	1778	...	.	2	.	C . 0
10 ⁻¹	E	1778	...	.	2	.	E B 0
15 ⁻¹	D	1778	...	.	2	.	D B 0
20 ⁺⁵	H	1778	...	.	2	.	H B 0
30 ⁺⁵	L	1778	...	.	2	.	L B 0



MAXIMUM PULSE RISE TIME: (d_U/d_t) in V/μs

RATED VOLTAGE	PITCH (mm)			
	10.0	15.0	22.5	27.5 / 37.5
AC 275 V	200	200	150	100

RATED VOLTAGE:

AC 275 V, 50/60 Hz

PERMISSIBLE DC VOLTAGE:

DC 630 V

TERMINALS:

Radial tinned copper wire

COATING:

Plastic case, epoxy resin sealed, flame retardant UL 94V-0

CLIMATIC TESTING CLASS ACC.TO EN 60068-1:

40/100/56

CAPACITANCE RANGE:

E12 series 0.01 μF X2 - 4.7 μF X2
preferred values acc. to E6

FEATURES:

Product is completely lead (Pb)-free
Product is RoHS compliant



CAPACITANCE TOLERANCE:

Standard: ± 20 %/± 10 %



DISSIPATION FACTOR TAN δ:

< 0.1 % measured at 1 kHz



INSULATION RESISTANCE: FOR C ≤ 0.33 μF:

30 GΩ average value
15 GΩ minimum value

TIME CONSTANT FOR C > 0.33 μF:

10 000 sec. average value
5000 sec. minimum value

TEST VOLTAGE:

(Electrode/electrode): DC 2150 V/2 sec

REFERENCE STANDARDS:

EN 60068-1, EN 132 400, 1994
IEC-Publ. 60384-14/2, 1993; UL 1283, UL 1414
CSA 22.2 No. 8-M 86, CSA 22.2 No. 1-M 90

DIELECTRIC:

Polypropylene film

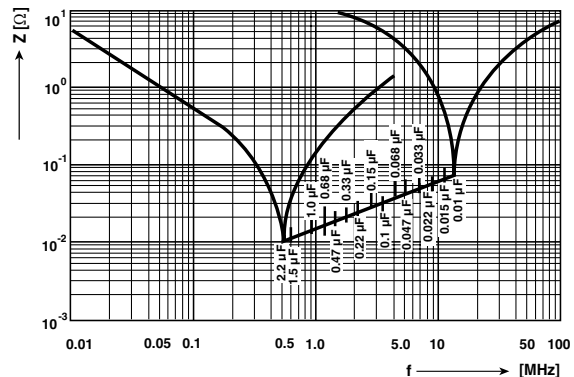
ELECTRODES:

Metal evaporated

CONSTRUCTION:

Metallized film capacitor, single design

Between interconnected terminations and case (foil method):
AC 2500 V for 2 sec. at 25 °C



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

FURTHER TECHNICAL DATA:

See page 21 (Document No 26504)



APPROVALS

COUNTRY	SPECIFICATION	ELECTRICAL VALUES	APPROVAL	APPROVAL MARK
U.S.A.	UL 1283 (for AC 275 V) UL 1414 (for AC 250 V)	0.01 - 4.7 μ F X 0.01 - 1.0 μ F X	E 76 297 E 100 682	
Canada (for AC 250 V)	C 22.2 No. 8-M 1986 C 22.2 No. 1-M 1994	0.01 - 4.7 μ F X 0.01 - 1.0 μ F X	1114383 EN 100 682	
CB TEST-CERTIFICATE (for AC 275 V)		0.01 - 4.7 μ F X2	DE 1-19508	
Germany	EN 132 400; 1999 IEC 60384-14, 2nd edition; 1995	0.01- 4.7 μ F X2	40000787	

CAPACITANCE CODE POS. 5 - 7	TOL. CODE POS. 8 J = \pm 5 % K = \pm 10 % M = \pm 20 %	PITCH		BOX NO.	DIMENSIONS W x H x L (mm) (+ 0.2/- 0.4 mm)	WEIGHT (Lead Length \leq 6 ⁻¹ mm) (g)	QUANTITY PACKAGE (Lead Length \leq 6 ⁻¹ mm) (pcs)*	ORDERING CODE**					
		(mm)	CODE POS. 10					TYPE	C-VALUE	TOL	VOLTAGE	PITCH	LEAD Length Design
Pitch 10 mm													
0.01 μ F X2	K/M	10.0	D	32	3.8 x 8.8 x 12.8	0.6	1500	1778	310	.	2	D	. B0
0.012 μ F X2	K	10.0	D	32	3.8 x 8.8 x 12.8	0.6	1500	1778	312	K	2	D	. B0
0.015 μ F X2	K/M	10.0	D	32	3.8 x 8.8 x 12.8	0.6	1500	1778	315	.	2	D	. B0
0.018 μ F X2	K	10.0	D	02	4.2 x 9.4 x 12.8	0.8	1250	1778	318	K	2	D	. B0
0.022 μ F X2	K/M	10.0	D	02	4.2 x 9.4 x 12.8	0.8	1250	1778	322	.	2	D	. B0
0.027 μ F X2	K	10.0	D	03	5.3 x 10.3 x 12.8	1.0	1250	1778	327	K	2	D	. B0
0.033 μ F X2	K/M	10.0	D	03	5.3 x 10.3 x 12.8	1.0	1000	1778	333	.	2	D	. B0
0.039 μ F X2	K	10.0	D	03	5.3 x 11.3 x 12.8	1.0	1000	1778	339	K	2	D	. B0
0.047 μ F X2	M	10.0	D	03	5.3 x 11.3 x 12.8	1.0	1000	1778	347	M	2	D	. B0
0.047 μ F X2	K	10.0	D	04	6.3 x 11.3 x 12.8	1.3	750	1778	347	K	2	D	. B0
0.068 μ F X2	K/M	10.0	D	91	6.4 x 12.5 x 12.8	1.5	750	1778	368	.	2	D	. B0
0.1 μ F X2	M	10.0	D	91	6.4 x 12.5 x 12.8	1.4	750	1778	410	M	2	D	. B0
Pitch 15 mm													
0.022 μ F X2	K/M	15.0	F	05	5.3 x 10.3 x 17.8	0.8	750	1778	322	.	2	F	. B0
0.033 μ F X2	K/M	15.0	F	05	5.3 x 10.3 x 17.8	0.8	750	1778	333	.	2	F	. B0
0.047 μ F X2	K/M	15.0	F	05	5.3 x 10.3 x 17.8	1.0	750	1778	347	.	2	F	. B0
0.056 μ F X2	K	15.0	F	05	5.3 x 10.3 x 17.8	1.4	750	1778	356	K	2	F	. B0
0.068 μ F X2	K/M	15.0	F	05	5.3 x 10.3 x 17.8	1.5	750	1778	368	.	2	F	. B0
0.082 μ F X2	K	15.0	F	05	5.3 x 10.3 x 17.8	1.5	750	1778	382	K	2	F	. B0
0.1 μ F X2	K	15.0	F	49	6.0 x 12.0 x 17.9	2.0	600	1778	410	K	2	F	. B0
0.1 μ F X2	M	15.0	F	05	5.3 x 10.3 x 17.8	1.8	750	1778	410	M	2	F	. B0
0.12 μ F X2	K	15.0	F	49	6.0 x 12.0 x 17.9	2.2	600	1778	412	K	2	F	. B0
0.15 μ F X2	K	15.0	F	07	7.3 x 13.3 x 17.8	2.4	450	1778	415	K	2	F	. B0
0.15 μ F X2	M	15.0	F	49	6.0 x 12.0 x 17.9	2.2	600	1778	415	M	2	F	. B0
0.18 μ F X2	K	15.0	F	07	8.3 x 17.3 x 17.8	2.5	450	1778	418	K	2	F	. . 0
0.22 μ F X2	K/M	15.0	F	08	8.3 x 14.3 x 17.8	3.3	300	1778	422	.	2	F	. . 0
0.33 μ F X2	K/M	15.0	F	46	10.0 x 16.0 x 17.9	6.3	240	1778	433	.	2	F	. . 0
0.39 μ F X2	K	15.0	F	70	10.8 x 18.3 x 17.8	7.0	225	1778	439	K	2	F	. . 0
0.47 μ F X2	K	15.0	F	70	10.8 x 18.3 x 17.8	7.0	225	1778	447	K	2	F	. . 0
0.47 μ F X2	M	15.0	F	35	10.3 x 17.3 x 17.8	6.5	225	1778	447	M	2	F	. . 0

Inbuilt discharging resistor on request (with larger case dimensions).

* For further information about packaging quantities with different lead length and/or taped versions visit www.vishay.com/doc?27622

(Packing Quantities) - use Box No. as reference

** These capacitors can be delivered on continuous tape and reel, visit www.vishay.com/doc?27622

Bo = Bulk Pack
T0 = Tray/Pallet

CAPACITANCE CODE POS. 5 - 7	TOL. CODE POS. 8 J = ± 5 % K = ± 10 % M = ± 20 %	PITCH		BOX NO.	DIMENSIONS W x H x L (mm) (+ 0.2/- 0.4 mm)	WEIGHT (Lead Length ≤ 6 ⁻¹ mm) (g)	QUANTITY PACKAGE (Lead Length ≤ 6 ⁻¹ mm) (pcs)**	ORDERING CODE**					
		(mm)	CODE POS. 10					TYPE	C-VALUE	TOL	VOLTAGE	PITCH	LEAD Length Design
Pitch 22.5 mm													
0.15 µF X2	K/M	22.5	I	09	6.3 x 14.3 x 26.3	3.3	260	1778	415	.	2	I	.. 0
0.22 µF X2	K	22.5	I	09	6.3 x 14.3 x 26.3	3.4	260	1778	422	K	2	I	.. 0
0.22 µF X2	M	22.5	I	09	6.3 x 14.3 x 26.3	3.4	260	1778	422	M	2	I	.. 0
0.27 µF X2	K	22.5	I	12	8.3 x 16.3 x 26.3	4.1	200	1778	427	K	2	I	.. 0
0.33 µF X2	K	22.5	I	12	8.3 x 16.3 x 26.3	5.0	190	1778	433	K	2	I	.. 0
0.33 µF X2	M	22.5	I	11	7.3 x 15.3 x 26.2	4.1	235	1778	433	M	2	I	.. 0
0.39 µF X2	K	22.5	I	12	8.3 x 16.3 x 26.3	5.0	200	1778	439	K	2	I	.. 0
0.47 µF X2	K	22.5	I	01	8.8 x 16.8 x 26.3	5.7	190	1778	447	K	2	I	.. 0
0.47 µF X2	M	22.5	I	12	8.3 x 16.3 x 26.2	5.0	200	1778	447	M	2	I	.. 0
0.56 µF X2	K	22.5	I	45	10.8 x 20.8 x 26.3	8.0	150	1778	456	K	2	I	.. 0
0.68 µF X2	K	22.5	I	45	10.8 x 20.8 x 26.3	8.0	150	1778	468	K	2	I	.. 0
0.68 µF X2	M	22.5	I	13	10.3 x 18.3 x 26.2	6.7	170	1778	468	M	2	I	.. 0
1.0 µF X2	M	22.5	I	27	12.3 x 20.0 x 26.3	8.7	135	1778	510	M	2	I	.. 0
Pitch 27.5 mm													
0.47 µF X2	K/M	27.5	K	23	8.8 x 16.8 x 31.3	6.8	160	1778	447	.	2	K	.. 0
0.56 µF X2	K	27.5	K	23	8.8 x 16.8 x 31.3	7.0	160	1778	456	K	2	K	.. 0
0.68 µF X2	K/M	27.5	K	29	8.8 x 18.3 x 31.3	7.4	160	1778	468	.	2	K	.. 0
0.82 µF X2	K	27.5	K	14	11.0 x 20.3 x 31.3	9.1	125	1778	482	K	2	K	.. 0
1.0 µF X2	K/M	27.5	K	14	11.0 x 20.3 x 31.3	9.1	125	1778	510	.	2	K	.. 0
1.2 µF X2	K	27.5	K	15	13.0 x 23.3 x 31.3	12.9	110	1778	512	K	2	K	.. 0
1.5 µF X2	K/M	27.5	K	15	13.0 x 23.3 x 31.3	13.2	110	1778	515	.	2	K	.. 0
1.8 µF X2	K	27.5	K	17	16.3 x 29.3 x 31.3	19.0	85	1778	518	K	2	K	.. 0
2.2 µF X2	K/M	27.5	K	17	16.3 x 29.3 x 31.3	21.0	85	1778	522	.	2	K	.. 0
3.3 µF X2	K	27.5	K	41	19.5 x 34.8 x 31.3	29.8	70	1778	533	K	2	K	.. 0
3.3 µF X2	M	27.5	K	40	17.8 x 32.3 x 31.3	27.8	80	1778	533	M	2	K	.. 0
Pitch 37.5 mm													
2.2 µF X2	K/M	37.5	P	16	14.0 x 24.3 x 41.3	19	80	1778	522	.	2	P	.. 0
3.3 µF X2	M	37.5	P	19	15.5 x 28.3 x 41.3	25.0	70	1778	533	M	2	P	.. 0
4.7 µF X2	M	37.5	P	20	17.8 x 32.3 x 41.3	31.6	60	1778	547	M	2	P	.. 0

Inbuilt discharging resistor on request (with larger case dimensions).

* For further information about packaging quantities with different lead length and/or taped versions visit www.vishay.com/doc?27622

(Packing Quantities) - use Box No. as reference

Bo = Bulk Pack

** These capacitors can be delivered on continuous tape and reel, visit www.vishay.com/doc?27622

T0 = Tray/Pallet

APPLICATION NOTES

- For X2 electromagnetic interference suppression in **across the line applications** (50/60 Hz) with a maximum mains voltage of 275 V (AC).
- These capacitors are not intended for continuous pulse applications. For these situations, capacitors of the AC and pulse programs must be used.
- These capacitors are not intended for series impedance application. For these situations in case safety approvals are requested, please refer to our special capacitors of 1772 series with internal series connection.
- The maximum ambient temperature must not exceed 100 °C.
- Rated voltage pulse slope:
If the pulse voltage is lower than the rated voltage, the values of the specific reference data can be multiplied by 385 V (DC) and divided by the applied voltage.



Disclaimer

All product specifications and data are subject to change without notice.

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 herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

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.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

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