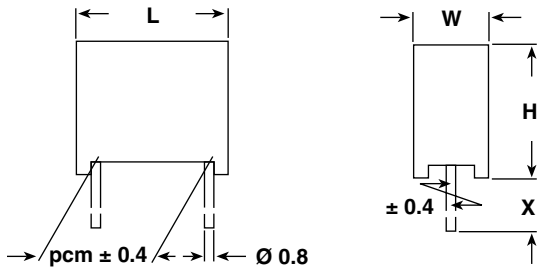
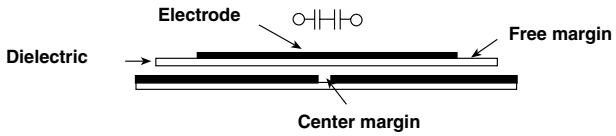
AC-Capacitors, Suppression Capacitors
Class X2 AC 300 V (MKT)

Dimensions in mm



LEAD LENGTH X (mm)	ORDERING CODE**
4^{-1}	F1772-. . .-3204/3264
6^{-1}	F1772-. . .-3200/3260
15^{-1}	F1772-. . .-3215/3265
30^{+5}	F1772-. . .-3230/3263



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

RATED VOLTAGE	PITCH (mm)			
	15.0	22.5	27.5	37.5
AC 300 V	200	150	100	100

RATED VOLTAGE:
AC 300 V, 50/60 Hz

PERMISSIBLE DC VOLTAGE:
DC 800 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 µFX2 - 2.2 µFX2
E12 values on request

FURTHER TECHNICAL DATA:
See page 21 (Document No 26504)

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

Pb-free

e3

RoHS COMPLIANT

CAPACITANCE TOLERANCE:
Standard: ± 20 %

DISSIPATION FACTOR TANδ:
< 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.

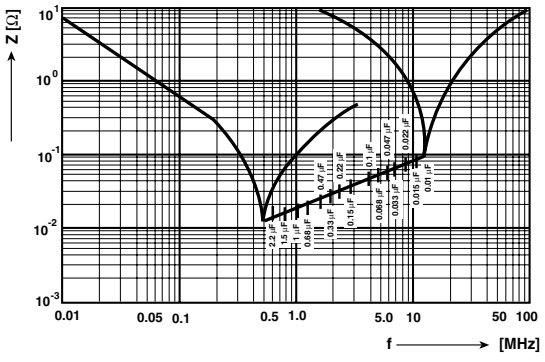
REFERENCE STANDARDS:
EN 132 400, 1994
EN 60068-1
IEC 60384-14/2, 1993
UL 1283
UL 1414
CSA 22.2 No. 8-M 86
CSA 22.2 No. 1-M 90

DIELECTRIC:
Polyester film

ELECTRODES:
Metal evaporated

CONSTRUCTION:
Metallized film capacitor
Internal series connection

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.

APPROVALS

COUNTRY	SPECIFICATION	ELECTRICAL VALUES	APPROVAL REFERENCE	APPROVAL MARK
U.S.A. (for AC 250 V)	UL 1283 UL 1414	0.01 - 2.2 µFX 0.01 - 1.0 µFX	E 76297 E 100682	
Canada (for AC 250 V)	C 22.2 No. 8-M 1986 C 22.2 No. 1-M 1994	0.01 - 2.2 µFX 0.01 - 0.82 µFX	LR 64546 LR 64546-8	
CB TEST-CERTIFICATE (for AC 300 V)		0.01 - 2.2 µFX2	DE 1-8791	
Germany	EN 132 400; 1999 IEC 60384-14, 2nd edition, 1995	0.01 - 2.2 µFX2	40005120	
This approval mark together with the CB-Certificate replace all national approval marks of the following countries (they have already signed the CB-Agreement):				
Austria	Belgium	Denmark	Finland	Sweden
France	Germany	Ireland	Italy	Switzerland
Netherlands	Israel	Portugal	Spain	Great Britain
Japan	Norway	China	Poland	Czech. Republic
Singapore	Rep. of Korea	Hungary	Iceland	Slovenia

CAPACITANCE	TOL. (%)	PITCH (mm)	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**
0.01 µFX2	± 20	15.0	05	5.3 x 10.3 x 17.8	1.4	750	F1772-310-32 . .
0.015 µFX2	± 20	15.0	05	5.3 x 10.3 x 17.8	1.4	750	F1772-315-32 . .
0.022 µFX2	± 20	15.0	05	5.3 x 10.3 x 17.8	1.4	750	F1772-322-32 . .
0.033 µFX2	± 20	15.0	49	6.0 x 12.0 x 17.9	2.0	600	F1772-333-32 . .
0.047 µFX2	± 20	15.0	49	6.0 x 12.0 x 17.9	2.1	600	F1772-347-32 . .
0.068 µFX2	± 20	15.0	07	7.3 x 13.3 x 17.8	2.7	450	F1772-368-32 . .
0.1 µFX2	± 20	15.0	08	8.3 x 14.3 x 17.8	4.1	325	F1772-410-32 . .
0.15 µFX2	± 20	22.5	11	7.3 x 15.3 x 26.3	4.3	235	F1772-415-32 . .
0.15 µFX2	± 20	15.0	35	10.3 x 17.3 x 17.8	4.3	225	F1772-415-326 .
0.22 µFX2	± 20	22.5	12	8.3 x 16.3 x 26.3	6.8	200	F1772-422-32 . .
0.22 µFX2	± 20	15.0	36	13.3 x 22.3 x 17.8	7.1	185	F1772-422-326 .
0.33 µFX2	± 20	27.5	29	8.8 x 18.3 x 31.3	8.0	160	F1772-433-32 . .
0.33 µFX2	± 20	22.5	13	10.3 x 18.3 x 26.3	6.7	170	F1772-433-326 .
0.47 µFX2	± 20	27.5	14	11.0 x 20.3 x 31.3	10.0	125	F1772-447-32 . .
0.47 µFX2	± 20	22.5	27	12.3 x 19.8 x 26.3	8.7	125	F1772-447-326 .
0.68 µFX2	± 20	27.5	15	13.0 x 23.3 x 31.3	14.2	110	F1772-468-32 . .
0.68 µFX2	± 20	22.5	38	15.3 x 26.3 x 26.3	14.3	110	F1772-468-326 .
1.0 µFX2	± 20	27.5	17	16.3 x 29.3 x 31.3	22.5	85	F1772-510-32 . .
1.0 µFX2	± 20	22.5	20	17.8 x 29.3 x 26.3	18.3	90	F1772-510-326 .
1.5 µFX2	± 20	37.5	70	15.5 x 28.3 x 41.3	26.1	70	F1772-515-32 . .
1.5 µFX2	± 20	27.5	40	17.8 x 32.8 x 31.3	24.4	80	F1772-515-326 .
2.2 µFX2	± 20	37.5	20	17.8 x 32.3 x 41.3	33.4	60	F1772-522-32 . .

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

* Further information about packaging quantities with different lead length and/or taped versions.
See page 16 (Document No 27608 Packing Quantities). Use Box No. as reference

** These capacitors can be delivered on continuous tape and reel - see page 14/15 (Document Number 27622).
The ordering code is: F1772-. . .-3290 at H = 16.5 mm
F1772-. . .-3291 at H = 18.5 mm
F1772-. . .-3960 at H = 16.5 mm
F1772-. . .-3961 at H = 18.5 mm

APPLICATION NOTES

- For X2 electromagnetic interference suppression in **across the line applications** (50/60 Hz) with a maximum mains voltage of 300 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 can be used for series impedance application in case safety approvals are requested.
- 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 420 V (DC) and divided by the applied voltage.

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