

Overview

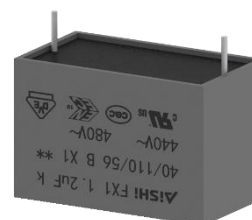
The FX1 series is constructed of metallized polypropylene film encapsulated with self-extinguishing resin in a box of material meeting the requirement of UL94V-0.

Applications

For use as an electromagnetic interference (EMI) suppression filter in across-the-line applications that require X1 safety classification. Suitable for use in situations where failure of the capacitor would not lead to danger of electric shock.

Features

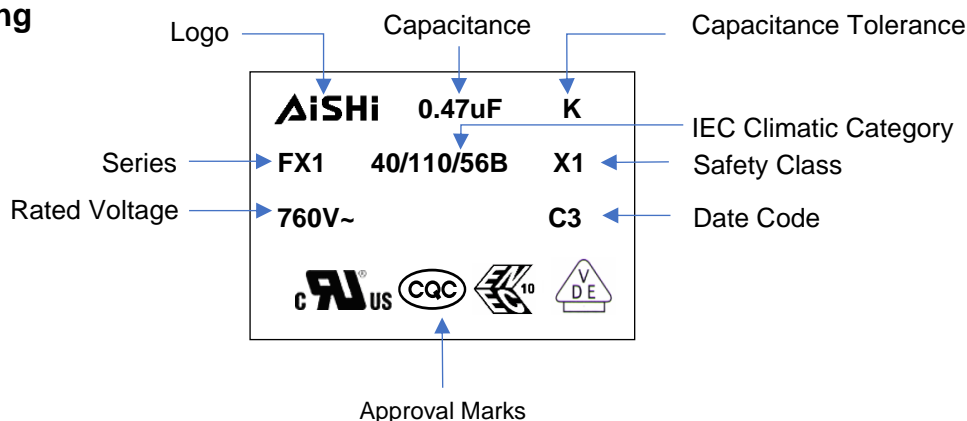
- High stability of capacitance
- High temperature (110°C)
- Self-healing property
- Over voltage stress withstanding
- Flame-retardant plastic case and resin



Approvals

Marking	Standard	File Number
	UL 60384-14 CAN/CSA-E60384-14	E500538
	IEC 60384-14:2013 IEC 60384-14:2013/AMD1:2016	40052137
	IEC 60384-14:2013+AMD1:2016 CQC11-471112-2015	CQC20001281016 (350~480Vac) CQC20001281018 (530~760Vac)

Marking



Manufacturing Date Code

Year	Code	Month	Code
2018	A	Jan	1
2019	B	Feb	2
2020	C	Mar	3
2021	D	Apr	4
2022	E	May	5
2023	F	Jun	6

Year	Code	Month	Code
2024	G	Jul	7
2025	H	Aug	8
2026	J	Sep	9
2027	K	Oct	A
2028	L	Nov	N
2029	M	Dec	D

Part Number System

F	X1	76	K	474	K13	2KL	5
Capacitor Type	Series	Voltage (VAC)	Tolerance	Capacitance (pF)	Size Code	Terminal Code	Lead Length Code
F = Film	Class X1, EMI Capacitor, Metallized PP Film	35=350 48=480 53=530 76=760	J = ±5% K = ±10% M = ±20%	First two digits = significant figures. Third digit = Number of zeros.	Refer to Size Code Table	Refer to Terminal Code Table	Refer to Lead Length Table

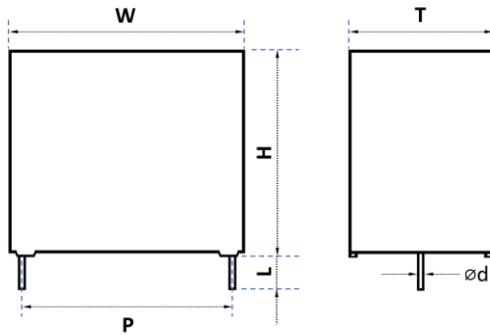
Terminal Code

Digit One (Lead/Terminal Type)	Digit Two (Lead Space)	Digit Three (Lead Ipsilateral)
2 leads for long	L 15.0mm	E N/A L
2 leads for straight cut	2 22.5mm	F
2 leads for forming cut	E 27.5mm	G
Taping	T 37.5mm	K
Taping Straight	V 52.5mm	M
	N/A	N

Lead Length Code

Lead Length	Code
20mm min	L
35mm min	B
3.2mm	1
3.5mm	2
3.0mm	3
4.0mm	4
5.0mm	5
7.0mm	7
Taping	T
N/A	N

Dimension (mm)



2 pins

Size Code Table (mm)

Size Code	Dimension						Pitch		Lead Wire	
	W	Tolerance	H	Tolerance	T	Tolerance	P	Tolerance	Ød	Tolerance
E14	18	0.5	11	0.5	5	0.5	15	0.5	0.6	0.05
E17	18	0.5	12	0.5	6	0.5	15	0.5	0.6	0.05
E29	18	0.5	13.5	0.5	7.5	0.5	15	0.5	0.8	0.05
E34	18	0.5	14.5	0.5	8.5	0.5	15	0.5	0.8	0.05
E43	18	0.5	16	0.5	10	0.5	15	0.5	0.8	0.05
E47	18	0.5	19	0.5	11	0.5	15	0.5	0.8	0.05
E52	18	0.5	22	0.5	12.5	0.5	15	0.5	0.8	0.05
F14	26	0.5	15.5	0.5	6	0.5	22.5	0.5	0.6	0.05
F17	26	0.5	16.5	0.5	7	0.5	22.5	0.5	0.8	0.05
F20	26	0.5	17	0.5	8.5	0.5	22.5	0.5	0.8	0.05
F24	26	0.5	19	0.5	10	0.5	22.5	0.5	0.8	0.05
F26	26	0.5	20	0.5	11	0.5	22.5	0.5	0.8	0.05
F27	26	0.5	22	0.5	12	0.5	22.5	0.5	0.8	0.05
F29	26	0.5	23	0.5	13	0.5	22.5	0.5	0.8	0.05
F30	26	0.5	24.5	0.5	13	0.5	22.5	0.5	0.8	0.05
F34	26	0.5	29.5	0.5	14.5	0.5	22.5	0.5	0.8	0.05
F36	26	0.5	25	0.5	15	0.5	22.5	0.5	0.8	0.05
G15	32	0.8	18	0.8	9	0.8	27.5	0.5	0.8	0.05
G18	32	0.8	20	0.8	11	0.8	27.5	0.5	0.8	0.05
G21	32	0.8	22	0.8	13	0.8	27.5	0.5	0.8	0.05
G22	32	0.8	24.5	0.8	13	0.8	27.5	0.5	0.8	0.05
G26	32	0.8	28	0.8	14	0.8	27.5	0.5	0.8	0.05
G27	32	0.8	24.5	0.8	15	0.8	27.5	0.5	0.8	0.05
G32	32	0.8	30	0.8	16	0.8	27.5	0.5	0.8	0.05
G33	32	0.8	28	0.8	18	0.8	27.5	0.5	0.8	0.05
G34	32	0.8	33	0.8	18	0.8	27.5	0.5	0.8	0.05
G40	32	0.8	37	0.8	22	0.8	27.5	0.5	0.8	0.05
K11	42	0.8	24	0.8	13	0.8	37.5	0.5	1.0	0.05
K13	42	0.8	26	0.8	15	0.8	37.5	0.5	1.0	0.05
K18	42	0.8	30	0.8	17	0.8	37.5	0.5	1.0	0.05
K21	42	0.8	32	0.8	19	0.8	37.5	0.5	1.0	0.05
K24	42	0.8	40	0.8	20	0.8	37.5	0.5	1.0	0.05
K27	42	0.8	37	0.8	22	0.8	37.5	0.5	1.0	0.05
K32	42	0.8	44	0.8	24	0.8	37.5	0.5	1.0	0.05
K39	42	0.8	43	0.8	28	0.8	37.5	0.5	1.0	0.05
K42	42	0.8	45	0.8	30	0.8	37.5	0.5	1.0	0.05
K47	42	0.8	50	0.8	35	0.8	37.5	0.5	1.0	0.05
K82	42	0.8	32	0.8	17	0.8	37.5	0.5	1.0	0.05

Rating and Part Number

Vac	Vdc	Cap Value μF	Dimensions				Peak Current A	Surge Current A	dv/dt V/us	Lead Wire mm	Part Number
			W mm	H mm	T mm	P mm					
350	700	0.01	18	11	5	15	5	15	500	0.6	FX135K103E142EL5
350	700	0.022	18	11	5	15	11	33	500	0.6	FX135K223E142EL5
350	700	0.033	18	11	5	15	16.5	49.5	500	0.6	FX135K333E142EL5
350	700	0.047	18	11	5	15	23.5	70.5	500	0.6	FX135K473E142EL5
350	700	0.068	18	12	6	15	34	102	500	0.6	FX135K683E172EL5
350	700	0.1	18	13.5	7.5	15	50	150	500	0.8	FX135K104E292EL5
350	700	0.15	18	14.5	8.5	15	75	225	500	0.8	FX135K154E342EL5
350	700	0.22	18	16	10	15	110	330	500	0.8	FX135K224E432EL5
350	700	0.33	18	19	11	15	165	495	500	0.8	FX135K334E472EL5
350	700	0.047	26	15.5	6	22.5	18.8	56.4	400	0.6	FX135K473F142FL5
350	700	0.068	26	15.5	6	22.5	27.2	81.6	400	0.6	FX135K683F142FL5
350	700	0.1	26	15.5	6	22.5	40	120	400	0.6	FX135K104F142FL5
350	700	0.15	26	15.5	6	22.5	60	180	400	0.6	FX135K154F142FL5
350	700	0.22	26	16.5	7	22.5	88	264	400	0.8	FX135K224F172FL5
350	700	0.33	26	17	8.5	22.5	132	396	400	0.8	FX135K334F202FL5
350	700	0.47	26	19	10	22.5	188	564	400	0.8	FX135K474F242FL5
350	700	0.68	26	22	12	22.5	272	816	400	0.8	FX135K684F272FL5
350	700	1	26	25	15	22.5	400	1200	400	0.8	FX135K105F362FL5
350	700	0.15	32	18	9	27.5	30	90	200	0.8	FX135K154G152GL5
350	700	0.22	32	18	9	27.5	44	132	200	0.8	FX135K224G152GL5
350	700	0.33	32	18	9	27.5	66	198	200	0.8	FX135K334G152GL5
350	700	0.47	32	18	9	27.5	94	282	200	0.8	FX135K474G152GL5
350	700	0.68	32	20	11	27.5	136	408	200	0.8	FX135K684G182GL5
350	700	1	32	22	13	27.5	200	600	200	0.8	FX135K105G212GL5
350	700	1.2	32	28	14	27.5	240	720	200	0.8	FX135K125G262GL5
350	700	1.5	32	30	16	27.5	300	900	200	0.8	FX135K155G322GL5
350	700	2.2	32	33	18	27.5	440	1320	200	0.8	FX135K225G342GL5
350	700	3.3	32	37	22	27.5	660	1980	200	0.8	FX135K335G402GL5
350	700	1	42	24	13	37.5	100	300	100	1.0	FX135K105K112KL5
350	700	1.2	42	24	13	37.5	120	360	100	1.0	FX135K125K112KL5
350	700	1.5	42	26	15	37.5	150	450	100	1.0	FX135K155K132KL5
350	700	1.8	42	26	15	37.5	180	540	100	1.0	FX135K185K132KL5
350	700	2.2	42	30	17	37.5	220	660	100	1.0	FX135K225K182KL5
350	700	2.7	42	32	19	37.5	270	810	100	1.0	FX135K275K212KL5
350	700	3.3	42	32	19	37.5	330	990	100	1.0	FX135K335K212KL5
350	700	4.7	42	37	22	37.5	470	1410	100	1.0	FX135K475K272KL5
350	700	5.6	42	44	24	37.5	560	1680	100	1.0	FX135K565K322KL5

Rating and Part Number

Vac	Vdc	Cap Value μF	Dimensions				Peak Current A	Surge Current A	dv/dt V/us	Lead Wire mm	Part Number
			W mm	H mm	T mm	P mm					
480	1000	0.01	18	11	5	15	6	18	600	0.6	FX148K103E142EL5
480	1000	0.015	18	11	5	15	9	27	600	0.6	FX148K153E142EL5
480	1000	0.018	18	11	5	15	10.8	32.4	600	0.6	FX148K183E142EL5
480	1000	0.022	18	11	5	15	13.2	39.6	600	0.6	FX148K223E142EL5
480	1000	0.033	18	11	5	15	19.8	59.4	600	0.6	FX148K333E142EL5
480	1000	0.047	18	12	6	15	28.2	84.6	600	0.6	FX148K473E172EL5
480	1000	0.068	18	13.5	7.5	15	40.8	122.4	600	0.8	FX148K683E292EL5
480	1000	0.1	18	14.5	8.5	15	60	180	600	0.8	FX148K104E342EL5
480	1000	0.15	18	19	11	15	90	270	600	0.8	FX148K154E472EL5
480	1000	0.22	18	22	12.5	15	132	396	600	0.8	FX148K224E522EL5
480	1000	0.047	26	15.5	6	22.5	14.1	42.3	300	0.6	FX148K473F142FL5
480	1000	0.056	26	15.5	6	22.5	16.8	50.4	300	0.6	FX148K563F142FL5
480	1000	0.068	26	15.5	6	22.5	20.4	61.2	300	0.6	FX148K683F142FL5
480	1000	0.082	26	15.5	6	22.5	24.6	73.8	300	0.6	FX148K823F142FL5
480	1000	0.1	26	15.5	6	22.5	30	90	300	0.6	FX148K104F142FL5
480	1000	0.15	26	16.5	7	22.5	45	135	300	0.8	FX148K154F172FL5
480	1000	0.22	26	17	8.5	22.5	66	198	300	0.8	FX148K224F202FL5
480	1000	0.33	26	20	11	22.5	99	297	300	0.8	FX148K334F262FL5
480	1000	0.47	26	24.5	13	22.5	141	423	300	0.8	FX148K474F302FL5
480	1000	0.56	26	25	15	22.5	168	504	300	0.8	FX148K564F362FL5
480	1000	0.68	26	29.5	14.5	22.5	204	612	300	0.8	FX148K684F342FL5
480	1000	0.15	32	18	9	27.5	30	90	200	0.8	FX148K154G152GL5
480	1000	0.22	32	18	9	27.5	44	132	200	0.8	FX148K224G152GL5
480	1000	0.33	32	18	9	27.5	66	198	200	0.8	FX148K334G152GL5
480	1000	0.47	32	20	11	27.5	94	282	200	0.8	FX148K474G182GL5
480	1000	0.56	32	22	13	27.5	112	336	200	0.8	FX148K564G212GL5
480	1000	0.68	32	24.5	13	27.5	136	408	200	0.8	FX148K684G222GL5
480	1000	0.82	32	28	14	27.5	164	492	200	0.8	FX148K824G262GL5
480	1000	1	32	28	18	27.5	200	600	200	0.8	FX148K105G332GL5
480	1000	1.2	32	33	18	27.5	240	720	200	0.8	FX148K125G342GL5
480	1000	1.5	32	33	18	27.5	300	900	200	0.8	FX148K155G342GL5
480	1000	1.8	32	37	22	27.5	360	1080	200	0.8	FX148K185G402GL5
480	1000	0.47	42	24	13	37.5	70.5	211.5	150	1.0	FX148K474K112KL5
480	1000	0.56	42	24	13	37.5	84	252	150	1.0	FX148K564K112KL5
480	1000	0.68	42	24	13	37.5	102	306	150	1.0	FX148K684K112KL5
480	1000	0.82	42	24	13	37.5	123	369	150	1.0	FX148K824K112KL5
480	1000	1	42	24	13	37.5	150	450	150	1.0	FX148K105K112KL5
480	1000	1.2	42	26	15	37.5	180	540	150	1.0	FX148K125K132KL5
480	1000	1.5	42	30	17	37.5	225	675	150	1.0	FX148K155K182KL5
480	1000	1.8	42	32	17	37.5	270	810	150	1.0	FX148K185K822KL5
480	1000	2.2	42	32	19	37.5	330	990	150	1.0	FX148K225K212KL5
480	1000	2.7	42	37	22	37.5	405	1215	150	1.0	FX148K275K272KL5
480	1000	3.3	42	44	24	37.5	495	1485	150	1.0	FX148K335K322KL5
480	1000	3.9	42	43	28	37.5	585	1755	150	1.0	FX148K395K392KL5
480	1000	4.7	42	45	30	37.5	705	2115	150	1.0	FX148K475K422KL5
480	1000	5.6	42	50	35	37.5	840	2520	150	1.0	FX148K565K472KL5

Rating and Part Number

Vac	Vdc	Cap Value μF	Dimensions				Peak Current A	Surge Current A	dv/dt V/us	Lead Wire mm	Part Number
			W mm	H mm	T mm	P mm					
530	1100	0.0068	18	11	5	15	4.08	12.24	600	0.6	FX153K682E142EL5
530	1100	0.0082	18	11	5	15	4.92	14.76	600	0.6	FX153K822E142EL5
530	1100	0.01	18	11	5	15	6	18	600	0.6	FX153K103E142EL5
530	1100	0.022	18	12	6	15	13.2	39.6	600	0.6	FX153K223E172EL5
530	1100	0.033	18	13.5	7.5	15	19.8	59.4	600	0.8	FX153K334E292EL5
530	1100	0.047	18	14.5	8.5	15	28.2	84.6	600	0.8	FX153K473E342EL5
530	1100	0.056	18	14.5	8.5	15	33.6	100.8	600	0.8	FX153K563E342EL5
530	1100	0.068	18	18	9	15	40.8	122.4	600	0.8	FX153K683E392EL5
530	1100	0.1	18	19	11	15	60	180	600	0.8	FX153K104E472EL5
530	1100	0.033	26	15.5	6	22.5	9.9	29.7	300	0.6	FX153K333F142FL5
530	1100	0.047	26	15.5	6	22.5	14.1	42.3	300	0.6	FX153K473F142FL5
530	1100	0.056	26	15.5	6	22.5	16.8	50.4	300	0.6	FX153K563F142FL5
530	1100	0.068	26	15.5	6	22.5	20.4	61.2	300	0.6	FX153K683F142FL5
530	1100	0.082	26	15.5	6	22.5	24.6	73.8	300	0.6	FX153M823F142FL5
530	1100	0.1	26	16.5	7	22.5	30	90	300	0.8	FX153K104F172FL5
530	1100	0.15	26	17	8.5	22.5	45	135	300	0.8	FX153K154F202FL5
530	1100	0.22	26	19	10	22.5	66	198	300	0.8	FX153K224F242FL5
530	1100	0.33	26	22	12	22.5	99	297	300	0.8	FX153K334F272FL5
530	1100	0.47	26	29.5	14.5	22.5	141	423	300	0.8	FX153K474F342FL5
530	1100	0.15	32	20	11	27.5	30	90	200	0.8	FX153K154G182GL5
530	1100	0.22	32	20	11	27.5	44	132	200	0.8	FX153K224G182GL5
530	1100	0.33	32	20	11	27.5	66	198	200	0.8	FX153K334G182GL5
530	1100	0.47	32	22	13	27.5	94	282	200	0.8	FX153K474G212GL5
530	1100	0.47	32	24.5	13	27.5	94	282	200	0.8	FX153K474G222GL5
530	1100	0.56	32	24.5	13	27.5	112	336	200	0.8	FX153K564G222GL5
530	1100	0.68	32	24.5	15	27.5	136	408	200	0.8	FX153K684G272GL5
530	1100	0.68	32	28	18	27.5	136	408	200	0.8	FX153K684G332GL5
530	1100	0.82	32	28	18	27.5	164	492	200	0.8	FX153K824G332GL5
530	1100	1	32	33	18	27.5	200	600	200	0.8	FX153K105G342GL5
530	1100	1.5	32	37	22	27.5	300	900	200	0.8	FX153K155G402GL5
530	1100	1.8	32	37	22	27.5	360	1080	200	0.8	FX153M185G402GL5
530	1100	0.56	42	24	13	37.5	84	252	150	1.0	FX153K564K112KL5
530	1100	0.68	42	24	13	37.5	102	306	150	1.0	FX153K684K112KL5
530	1100	0.82	42	26	15	37.5	123	369	150	1.0	FX153K824K132KL5
530	1100	1	42	26	15	37.5	150	450	150	1.0	FX153K105K132KL5
530	1100	1	42	30	17	37.5	150	450	150	1.0	FX153K105K182KL5
530	1100	1.5	42	32	17	37.5	225	675	150	1.0	FX153M155K822KL5
530	1100	2	42	40	20	37.5	300	900	150	1.0	FX153K205K242KL5


Rating and Part Number

Vac	Vdc	Cap Value μF	Dimensions				Peak Current A	Surge Current A	dv/dt V/us	Lead Wire mm	Part Number
			W mm	H mm	T mm	P mm					
760	1500	0.0047	18	11	5	15	3.055	9.165	650	0.6	FX176K472E142EL5
760	1500	0.0056	18	11	5	15	3.64	10.92	650	0.6	FX176K562E142EL5
760	1500	0.0068	18	11	5	15	4.42	13.26	650	0.6	FX176K682E142EL5
760	1500	0.0082	18	11	5	15	5.33	15.99	650	0.6	FX176K822E142EL5
760	1500	0.01	18	11	5	15	6.5	19.5	650	0.6	FX176K103E142EL5
760	1500	0.012	18	12	6	15	7.8	23.4	650	0.6	FX176K123E172EL5
760	1500	0.015	18	12	6	15	9.75	29.25	650	0.6	FX176K153E172EL5
760	1500	0.022	18	13.5	7.5	15	14.3	42.9	650	0.8	FX176K223E292EL5
760	1500	0.033	18	14.5	8.5	15	21.45	64.35	650	0.8	FX176K333E342EL5
760	1500	0.047	18	19	11	15	30.55	91.65	650	0.8	FX176K473E472EL5
760	1500	0.01	26	15.5	6	22.5	3.5	10.5	350	0.6	FX176K103F142FL5
760	1500	0.012	26	15.5	6	22.5	4.2	12.6	350	0.6	FX176K123F142FL5
760	1500	0.015	26	15.5	6	22.5	5.25	15.75	350	0.6	FX176K153F142FL5
760	1500	0.018	26	15.5	6	22.5	6.3	18.9	350	0.6	FX176K183F142FL5
760	1500	0.022	26	15.5	6	22.5	7.7	23.1	350	0.6	FX176K223F142FL5
760	1500	0.027	26	15.5	6	22.5	9.45	28.35	350	0.6	FX176K273F142FL5
760	1500	0.033	26	15.5	6	22.5	11.55	34.65	350	0.6	FX176K333F142FL5
760	1500	0.047	26	15.5	6	22.5	16.45	49.35	350	0.6	FX176K473F142FL5
760	1500	0.056	26	16.5	7	22.5	19.6	58.8	350	0.8	FX176K563F172FL5
760	1500	0.068	26	16.5	7	22.5	23.8	71.4	350	0.8	FX176K683F172FL5
760	1500	0.082	26	17	8.5	22.5	28.7	86.1	350	0.8	FX176K823F202FL5
760	1500	0.1	26	19	10	22.5	35	105	350	0.8	FX176K104F242FL5
760	1500	0.12	26	19	10	22.5	42	126	350	0.8	FX176K124F242FL5
760	1500	0.15	26	19	10	22.5	52.5	157.5	350	0.8	FX176K154F242FL5
760	1500	0.22	26	23	13	22.5	77	231	350	0.8	FX176K224F292FL5
760	1500	0.33	26	29.5	14.5	22.5	115.5	346.5	350	0.8	FX176K334F342FL5
760	1500	0.056	32	18	9	27.5	19.6	58.8	350	0.8	FX176K563G152GL5
760	1500	0.068	32	18	9	27.5	17	51	250	0.8	FX176K683G152GL5
760	1500	0.082	32	18	9	27.5	20.5	61.5	250	0.8	FX176K823G152GL5
760	1500	0.1	32	18	9	27.5	25	75	250	0.8	FX176K104G152GL5
760	1500	0.15	32	20	11	27.5	37.5	112.5	250	0.8	FX176K154G182GL5
760	1500	0.22	32	22	13	27.5	55	165	250	0.8	FX176K224G212GL5
760	1500	0.33	32	24.5	15	27.5	82.5	247.5	250	0.8	FX176K334G272GL5
760	1500	0.39	32	28	18	27.5	97.5	292.5	250	0.8	FX176K394G332GL5
760	1500	0.47	32	33	18	27.5	117.5	352.5	250	0.8	FX176K474G342GL5
760	1500	0.56	32	33	18	27.5	140	420	250	0.8	FX176K564G342GL5
760	1500	0.68	32	37	22	27.5	170	510	250	0.8	FX176K684G402GL5
760	1500	0.33	42	24	13	37.5	66	198	200	1.0	FX176K334K112KL5
760	1500	0.39	42	24	13	37.5	78	234	200	1.0	FX176K394K112KL5
760	1500	0.47	42	26	15	37.5	94	282	200	1.0	FX176K474K132KL5
760	1500	0.56	42	30	17	37.5	112	336	200	1.0	FX176K564K182KL5
760	1500	0.68	42	30	17	37.5	136	408	200	1.0	FX176K684K182KL5
760	1500	0.82	42	32	19	37.5	164	492	200	1.0	FX176K824K212KL5
760	1500	1	42	32	19	37.5	200	600	200	1.0	FX176K105K212KL5
760	1500	1.2	42	37	22	37.5	240	720	200	1.0	FX176K125K272KL5
760	1500	1.5	42	44	24	37.5	300	900	200	1.0	FX176K155K322KL5
760	1500	1.8	42	43	28	37.5	360	1080	200	1.0	FX176K185K392KL5
760	1500	2	42	45	30	37.5	400	1200	200	1.0	FX176K205K422KL5

General Technical Data

Application	Interference suppression \ Across-the-line (Class X1)
Dielectric	Metallized Polypropylene Film
Reference Standard	IEC 60384-14; UL 60384-14; GB/T 6346.14-2015
Climatic Category	40/110/56 IEC60068-1
Passive Flammability Class	B
Operating Temperature Range	-40°C ~ +110°C (85°C ~110°C, decreasing factor 1.35% per °C for Urms)
Protection	Solvent resistant plastic case UL94 V-0 Thermosetting resin sealing UL 94 V-0 compliant
Installation	Any position
Packaging	Packed in cardboard boxes with protection for the terminals
Storage Conditions	Storage time: ≤24months from the date marked on the label package Average relative humidity per year ≤70% RH≤85% for 30 days randomly distributed throughout the year Dew is absent Temperature: -40°C ~ +85°C
RoHS Compliant	Compliant with the restricted substance requirements of Directive 2011/65/EU
Flame Retardant Grade	Flame retardant performance accords with horizontal combustion grade HB and vertical combustion grade V-0.

Construction

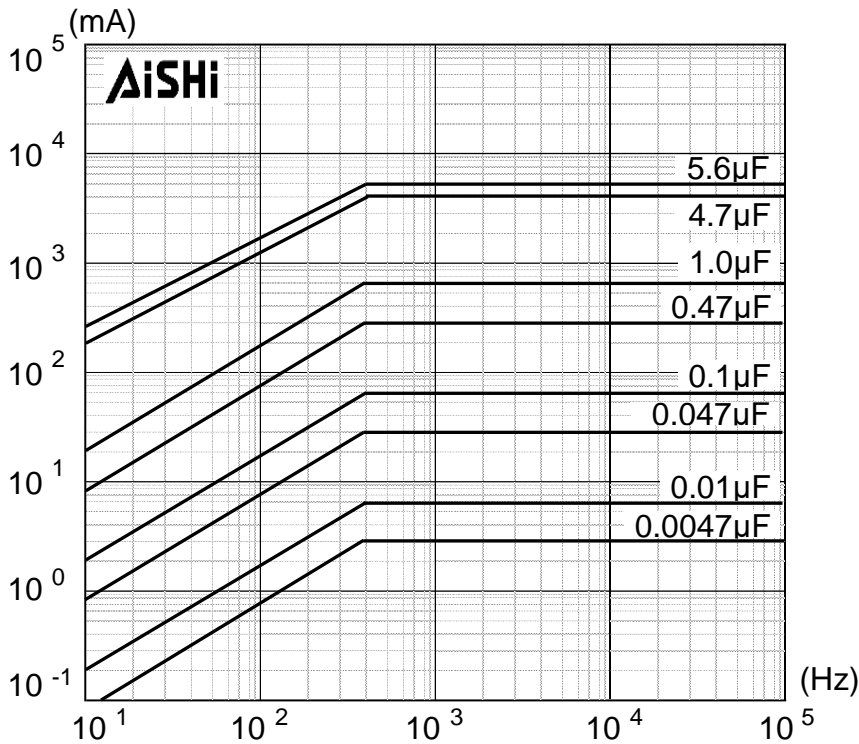
Metallized Film	OPP & Al/Zn
Metal Sprayed	Sn/Zn Alloy
Connection Electrode	Copper clad steel wire or Tinned copper wires
Plastic Case	Plastic Case (UL94V-0)
Filling	Epoxy Resin (UL94V-0)
Film Construction	<p style="text-align: center;">Internal Series Connection</p> 

Electrical Characteristics

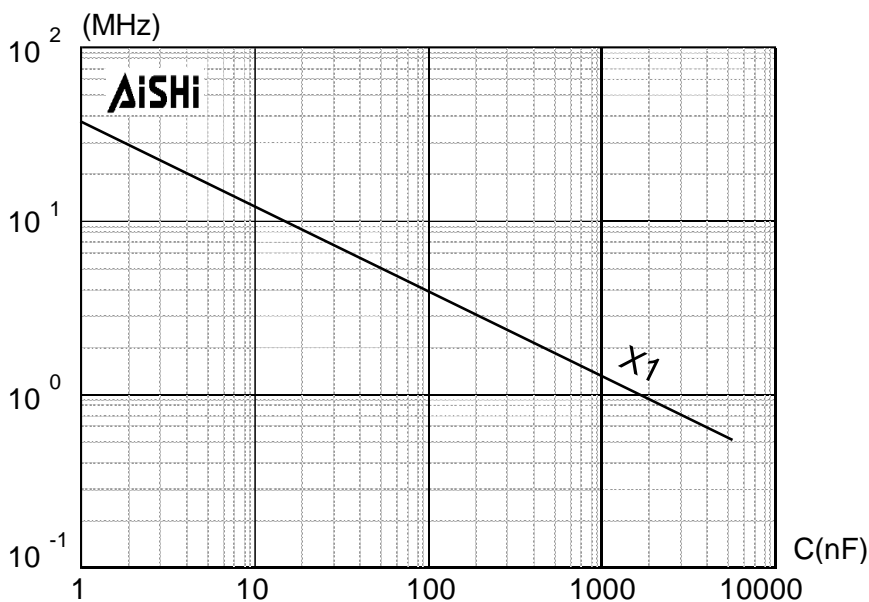
Voltage Range	350Vac, 480Vac, 530Vac, 760Vac 50/60Hz
Capacitance Range	0.0047 μ F to 5.6 μ F
Capacitance Tolerance	\pm 10% or \pm 20% at +25°C
Capacitance	Measuring Frequency at 1kHz Measuring Voltage: 1 ± 0.2 V
Standard Atmospheric Conditions for Static Test	Ambient temperature 15°C to 35°C (If there is any doubt on the results, the measurements shall be made at +20 +/- 5°C) Relative humidity 45% to 75% (If there is any doubt on the results, the measurements shall be made at 60% to 70 %.) Air pressure 86 kPa to 106 kPa.
Voltage Between Terminals U_{TT}	DC Voltage: $4.3 \times V_R$ for 60 seconds or $\sqrt{2}(2U_R + 1000\text{Vac})$ VDC for 2 seconds, charge current must be 1A max. Withstanding (DC) voltage (cut off current 10mA), rise time 100V/S. AC Voltage: $(2U_R + 1000\text{VAC})$ for 2 seconds
Voltage Between Terminals and Case U_{TC}	$2U_R + 1500\text{Vac}$, 60s (at +20+/-2°C)
Dielectric Dissipation Factor $Tg\delta_0$	$\leq 2 \times 10^{-4}$
Dissipation Factor	$\leq 10 \times 10^{-4}$ C < 0.47 μ F $\leq 20 \times 10^{-4}$ 0.47 μ F \leq C \leq 1.0 μ F $\leq 30 \times 10^{-4}$ C > 1.0 μ F
Insulation Resistance	R between leads, for C \leq 0.33 μ F at 100 V; 1 min > 15 000 M Ω RC between leads, for C > 0.33 μ F at 100 V; 1 min > 5000 M Ω * μ F
Hot-Spot	$\leq 85^\circ\text{C}$
Life Expectancy	100 000hours (UR, $\Theta_{\text{hotspot}}=85^\circ\text{C}$)
Failure Rate	100 Fit
Max. Altitude	2000 m

Characteristics Curve

Maximum Current (I_{rms}) Vs Frequency

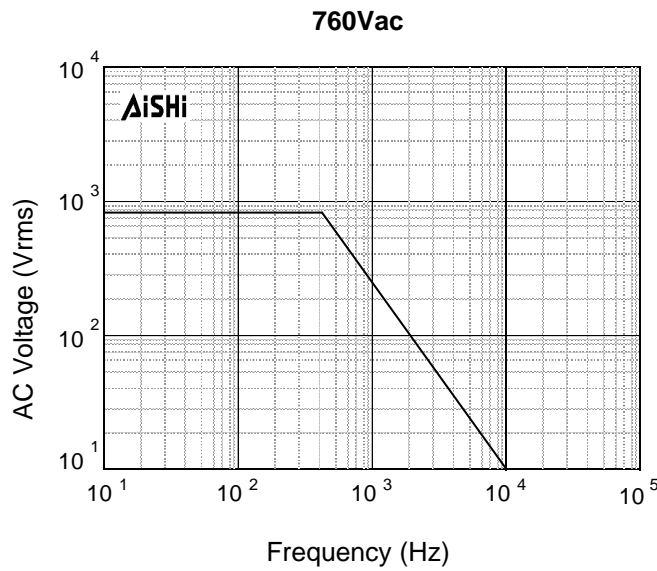
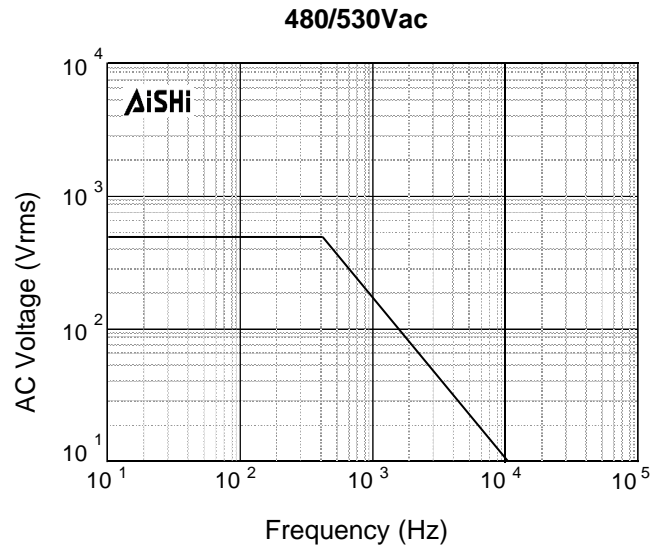
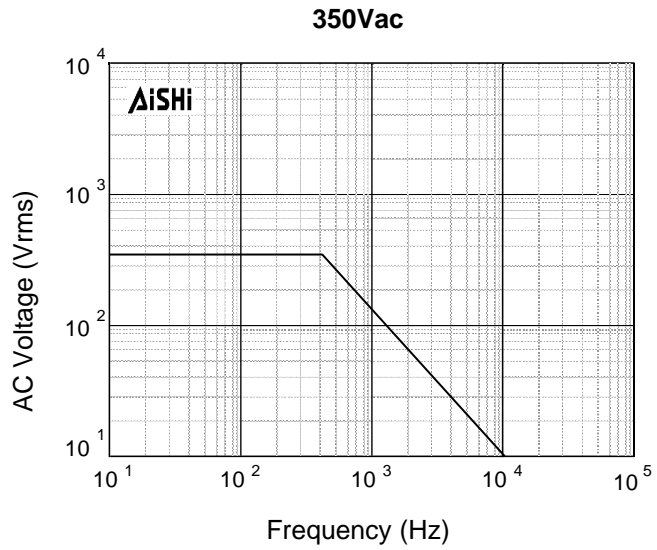


Resonant VS Capacitance

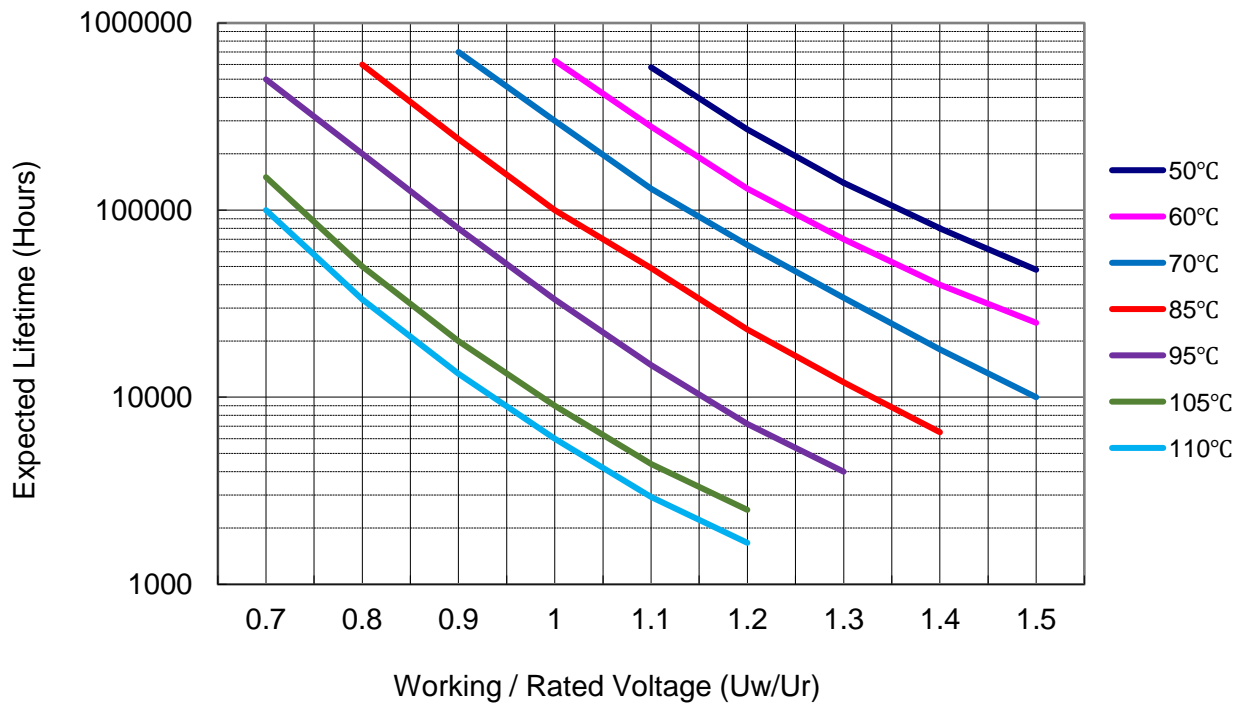


Characteristics Curve

Maximum Voltage (V_{rms}) Versus Frequency

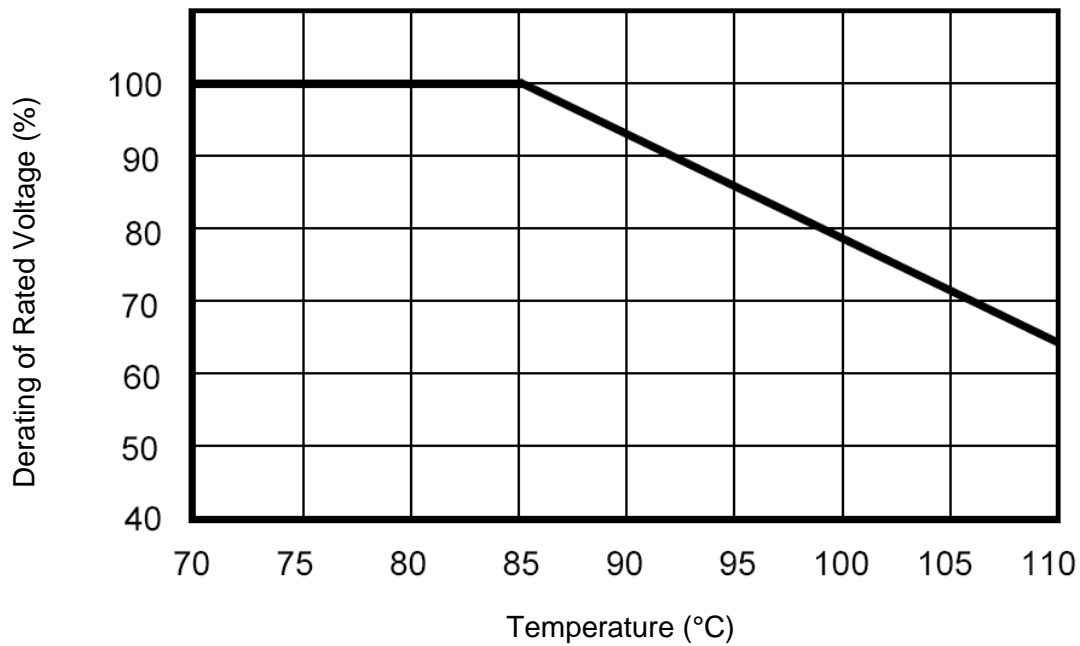


Expected Life Curve

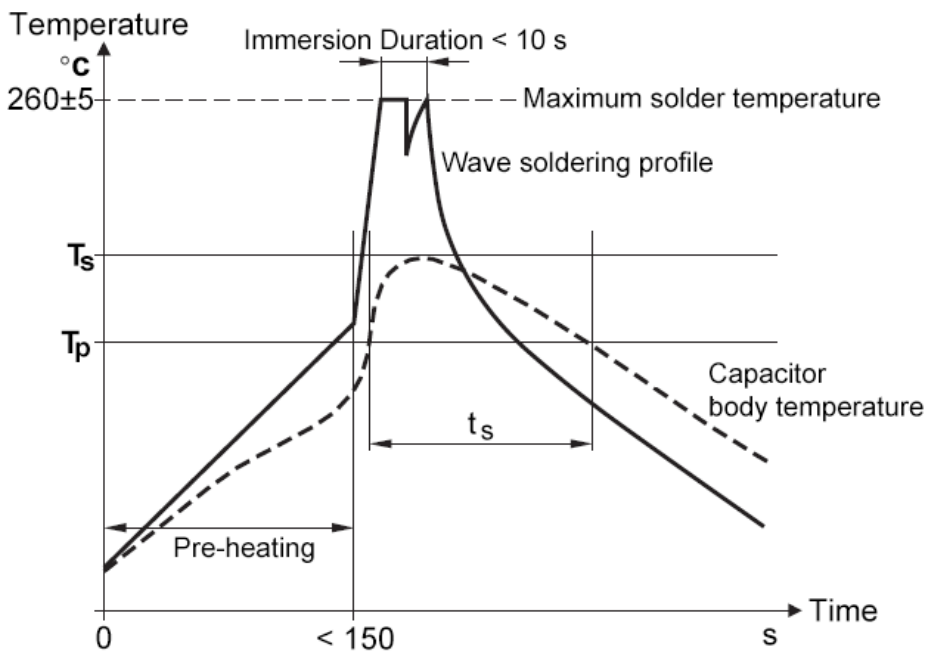


Derating of Rated Voltage Vs Temperature

(85°C ~110°C, decreasing factor 1.35% per °C for Urms)



Wave Soldering Recommendations

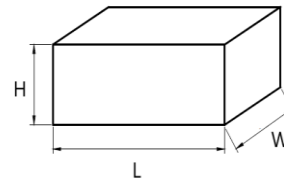


Ts: Capacitor body maximum temperature at wave soldering
 Tp: Capacitor body maximum temperature at pre-heating

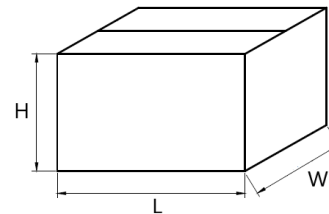
Polypropylene Capacitors	Polyester Capacitors
During pre-heating: Tp≤110°C During soldering: Ts ≤120°C, ts≤60	During pre-heating: Tp≤130°C During soldering: Ts≤160°C, ts≤60s

Packaging Information

Inner Box Specifications (Dimensions)			
Box #	L ±3mm	W±3mm	H ±3mm
# 1	331	331	25
# 2	331	331	35
# 3	331	331	50
# 4	331	331	80
# 5	350	170	35
# 6	350	170	50
# 7	350	170	80



Outer Box Specifications (Dimensions)			
Box #	L ±5mm	W±5mm	H ±5mm
# 1	350	340	265
# 2	370	360	350



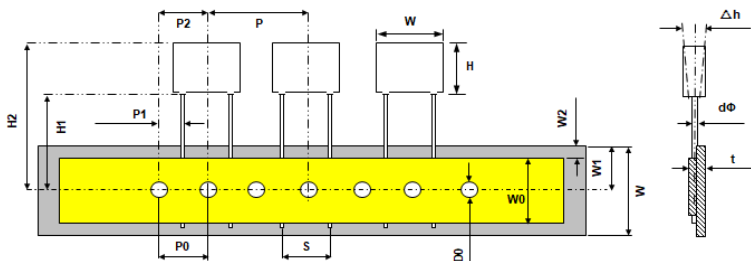
Packaging Quantity

Pitch	Size Code	Dimension			Packaging Quantity		
		W	H	T	Long Leads	Short Leads	Ammo Pack
15	E14	18	11	5	800	1,054	680
	E17	18	12	6	800	867	560
	E29	18	13.5	7.5	800	697	450
	E34	18	14.5	8.5	600	612	390
	E43	18	16	10	600	527	340
	E47	18	19	11	600	476	300
22.5	E52	18	22	12.5	600	408	260
	F14	26	15.5	6	612	612	350
	F17	26	16.5	7	528	528	300
	F20	26	17	8.5	432	432	250
	F24	26	19	10	372	372	210
	F26	26	20	11	336	336	190
	F27	26	22	12	300	300	170
	F29	26	23	13	276	276	160
	F30	26	24.5	13	276	276	160
F34	26	29.5	14.5	252	252	140	
27.5	F36	26	25	15	240	240	140
	G15	32	18	9	340	340	
	G18	32	20	11	280	280	
	G21	32	22	13	230	230	
	G22	32	24.5	13	230	230	
	G26	32	28	14	220	220	
	G27	32	24.5	15	200	200	
	G32	32	30	16	190	190	
	G33	32	28	18	170	170	
37.5	G34	32	33	18	170	170	
	G40	32	37	22	140	140	
	K11	42	24	13	161	161	
	K13	42	26	15	140	140	
	K18	42	30	17	126	126	
	K21	42	32	19	112	112	
	K24	42	40	20	105	105	
	K27	42	37	22	98	98	
	K32	42	44	24	91	91	
K39	42	43	28	77	77		
K42	42	45	30	70	70		
K47	42	50	35	63	63		
K82	42	32	17	126	126		

Lead Taping Information

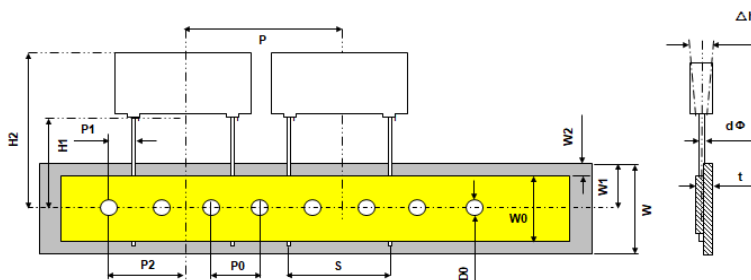
Taping Style: Straight leads

Lead spacing: 10 - 15mm



Quantity: 10pcs / line

Lead spacing: 22.5mm



Quantity: 6pcs / line

Taping Specification

Description	Symbol	Dimension (mm)				Tolerance
Lead Spacing	S	10.0	12.5	15.0	22.5	+0.8/-0.2
Taping Pitch	P	25.4	25.4	25.4	38.0	±1.0
Feed Hole Pitch	P0	12.7	12.7	12.7	12.7	±0.2
Centering of Lead Wire	P1	7.7	6.5	5.2	7.80	±0.7
Centering of Body	P2	12.7	12.7	12.7	19.1	±1.3
Carrier Tape Width	W	18.0	18.0	18.0	18.0	±0.5
Hold Down Tape Width	W0	9.5	9.5	9.5	9.5	minimum
Hole Position	W1	9.0	9.0	9.0	9.0	±0.5
Hold Down Tape Position	W2	3.0	3.0	3.0	3.0	maximum
Feed Hole Diameter	D0	4.0	4.0	4.0	4.0	±0.2
Height of Component From Tape Center	H1	20.0	20.0	20.0	20.0	±0.5
Top Edge of Component	H2	39.0	39.0	39.0	44.0	maximum
Lead Wire Diameter	d	0.6	0.8	0.8	0.8	±0.1
Component Alignment	Δh	0.0	0.0	0.0	0.0	±2.0
Tape Thickness	t	0.7	0.7	0.7	0.7	±0.2

Cautions and Warnings

- Don't exceed the upper category temperature.
- For longtime storage, maximum relative humidity 80%, no dew allowed on the capacitor.
- Do not use or store capacitor in corrosive atmosphere, in the dusty environment's regular maintenance and cleaning especially of the terminals is required to avoid conductive path between terminal / or terminal and ground.
- Don't apply any mechanical stress to the capacitor terminals, and avoid any compressive, tensile or flexural stress.
- Don't move the capacitor after fixed to the PC board, and don't pick up the PC board by the fixed capacitor.
- Don't place the capacitor on a PC board whose holes pitch differs from the specified space.
- Avoid overload of the capacitors
- Do not have unlimited service life expectancy, the max service life expectancy may vary depending on the application the capacitor is used in.

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