

Overview

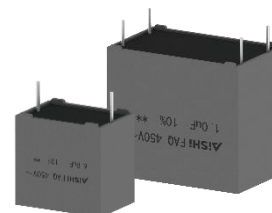
The FAQ capacitor is constructed of metallized polypropylene film encapsulated with epoxy resin in a plastic box, with 2 or 4 tinned copper wire. These FAQ series is suitable for harsh environment conditions and qualify in accordance to AEC-Q200D requirement.

Applications

Widely used in Clamping, AC and Harmonic Filtering, UPS Systems, Solar Inverter with LCL Filter and Motor Drive and automotive applications.

Features

- High ripple current
- Self-healing and low loss
- Optimized AC voltage performance
- Suitable for high frequency applications
- Suitable for harsh environment conditions
- THB Grade IIIB (85°C, 85% RH, 1000h at U_{RAC})
- Automotive Grade (AEC-Q200D)

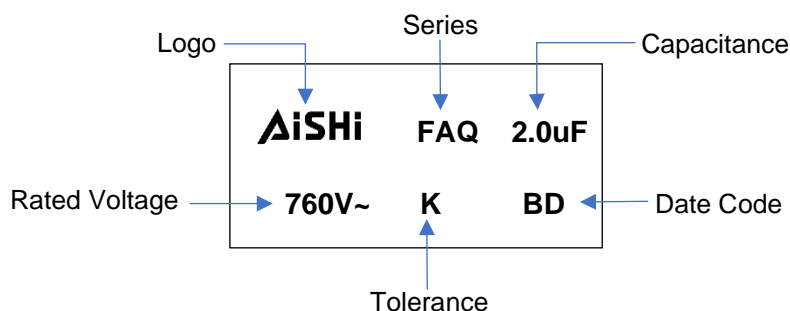


Qualification

Reference Standard	IEC 61071, EN 61071, AEC-Q200D
Climate Category	55/105/56 IEC 60068-1



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	AQ	76	K	205	K42	2KL	5
Capacitor Type	Series	Voltage (VAC)	Tolerance	Capacitance (pF)	Size Code	Terminal Code	Lead Length Code
F = Film	AC Filtering, AEC-Q200, Metallized PP Film	180=18 250=25 300=30 350=35 400=40 450=45 500=50 600=60 760=76	J = ±5% K = ±10%	First two digits = significant figures. Third digit = Number of zeros.	Refer to Size Code Table	Refer to Terminal Code Table	Refer to Lead Length Code Table

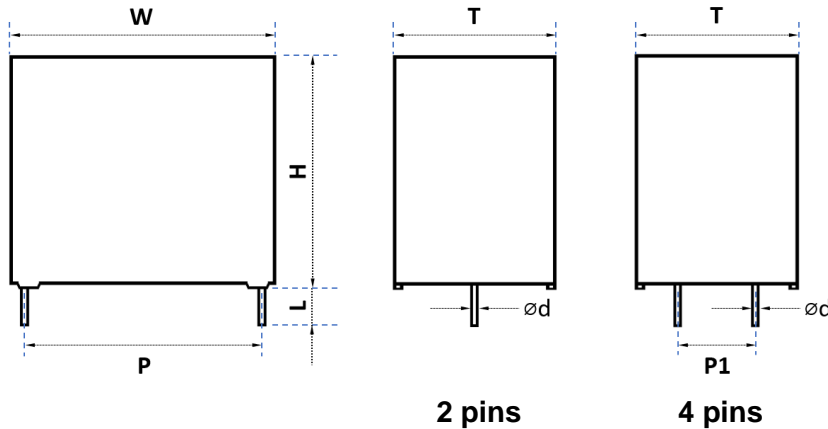
Terminal Code

Digit One (Lead/Terminal Type)		Digit Two (Lead Space)		Digit Three (Lead Ipsilateral)	
2 leads for long	L	27.5mm	G	10.2mm	B
2 leads for straight cut	2	37.5mm	K	12.7mm	G
2 leads for forming cut	E	52.5mm	M	20.3mm	D
4 leads for straight cut	4	N/A	N	N/A	L
6 leads for straight cut	6				

Lead Length Code

Lead Length	
3.0mm	3
4.0mm	4
5.0mm	5
7.0mm	7
20.0mm min	L

Dimension (mm)



Size Code Table (mm)

Size Code	Dimension						Pitch				Ød		
	W	Tolerance	H	Tolerance	T	Tolerance	P	Tolerance	P1	Tolerance	4 Leads	2 Leads	Tolerance
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
G25	32	0.8	24	0.8	14	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
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	10.2	0.5	1.0	0.8	0.05
K14	42	0.8	30	0.8	16	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
K27	42	0.8	37	0.8	22	0.8	37.5	0.5	10.2	0.5	1.2	1.0	0.05
K32	42	0.8	44	0.8	24	0.8	37.5	0.5	10.2	0.5	1.2	1.0	0.05
K39	42	0.8	43	0.8	28	0.8	37.5	0.5	10.2	0.5	1.2	1.0	0.05
K42	42	0.8	45	0.8	30	0.8	37.5	0.5	20.3	0.5	1.2	1.0	0.05
K47	42	0.8	50	0.8	35	0.8	37.5	0.5	20.3	0.5	1.2	1.0	0.05
M16	57.5	1.0	45	1.0	30	1.0	52.5	0.5	20.3	0.5	1.2	1.2	0.05
M20	57.5	1.0	50	1.0	35	1.0	52.5	0.5	20.3	0.5	1.2	1.2	0.05
M32	57.5	1.0	55	1.0	45	1.0	52.5	0.5	20.3	0.5	1.2	1.2	0.05
M34	57.5	1.0	65	1.0	45	1.0	52.5	0.5	20.3	0.5	1.2	1.2	0.05
M47	57.5	1.0	57.5	1.0	38	1.0	52.5	0.5	20.3	0.5	1.2	1.2	0.05

Metallized Polypropylene Film AC Filtering Capacitors

FAQ Series – 180VAC ~ 760VAC (Automotive Grade)



Rating and Part Number

Vac	Cap Value µF	Dimensions					I rms 10KHz A 70°C	Peak Current A	Surge Current A	ESR ^{Typical} 10KHz mΩ	ESL nH	Thermal Res °C/W	dv/dt V/us	Lead Wire mm	Part Number
		W mm	H mm	T mm	P mm	P1 mm									
180	4.0	32	22	13	27.5	\	7.0	300	900	6.8	16	45.0	75	0.8	FAQ18K405G212GL5
180	5.0	32	28	18	27.5	\	8.0	375	1125	5.5	18	42.6	75	0.8	FAQ18K505G332GL5
180	6.8	32	33	18	27.5	\	11.0	510	1530	4.0	20	31.0	75	0.8	FAQ18K685G342GL5
180	10	32	37	22	27.5	\	13.0	750	2250	2.8	22	31.7	75	1.0	FAQ18K106G402GL5
180	10	42	32	19	37.5	\	10.0	450	1350	5.0	24	30.0	45	1.0	FAQ18K106K212KL5
180	15	42	37	22	37.5	\	14.0	675	2025	3.5	24	21.9	45	1.0	FAQ18K156K274KL5
180	18	42	44	24	37.5	\	14.0	810	2430	2.8	24	27.3	45	1.0	FAQ18K186K324KL5
180	20	42	44	24	37.5	\	15.0	900	2700	2.5	24	26.7	45	1.0	FAQ18K206K322KL5
180	22	42	44	24	37.5	\	15.0	990	2970	2.2	26	30.3	45	1.0	FAQ18K226K322KL5
180	25	42	45	30	37.5	\	15.0	1125	3375	2.0	26	33.3	45	1.0	FAQ18K256K422KL5
180	30	42	50	35	37.5	20.3	18.0	1350	4050	1.8	28	25.7	45	1.2	FAQ18K306K472KL5
180	33	42	50	35	37.5	20.3	18.0	1485	4455	1.6	28	28.9	45	1.2	FAQ18K336K472KL5
180	40	57.5	45	30	52.5	20.3	20.0	1000	3000	2.5	30	15.0	25	1.2	FAQ18K406M164MD5
180	50	57.5	50	35	52.5	20.3	24.0	1250	3750	2.2	32	11.8	25	1.2	FAQ18K506M204MD5
180	60	57.5	57.5	38	52.5	20.3	26.0	1500	4500	1.8	32	12.3	25	1.2	FAQ18K606M474MD5
250	1.0	32	18	9	27.5	\	3.0	90	270	16.5	16	101.0	90	0.8	FAQ25K105G152GL5
250	1.5	32	20	11	27.5	\	4.0	135	405	10.5	16	89.3	90	0.8	FAQ25K155G182GL5
250	2.0	32	22	13	27.5	\	5.0	180	540	8.5	16	70.6	90	0.8	FAQ25K205G212GL5
250	2.2	32	22	13	27.5	\	6.0	198	594	7.8	16	53.4	90	0.8	FAQ25K225G212GL5
250	2.5	32	22	13	27.5	\	6.0	225	675	7.5	16	55.6	90	0.8	FAQ25K255G212GL5
250	3.0	32	24.5	15	27.5	\	7.0	270	810	6.5	16	47.1	90	0.8	FAQ25K305G272GL5
250	3.3	32	24.5	15	27.5	\	8.0	297	891	6.2	16	37.8	90	0.8	FAQ25K335G272GL5
250	3.5	32	28	14	27.5	\	8.0	315	945	5.8	18	40.4	90	0.8	FAQ25K355G262GL5
250	4.0	32	28	18	27.5	\	10.0	360	1080	4.8	20	31.3	90	0.8	FAQ25K405G332GL5
250	4.5	32	33	18	27.5	\	10.0	405	1215	4.5	20	33.3	90	0.8	FAQ25K455G342GL5
250	5.0	32	33	18	27.5	\	11.0	450	1350	4.0	20	31.0	90	0.8	FAQ25K505G342GL5
250	6.8	32	37	22	27.5	\	14.0	612	1836	2.8	22	27.3	90	1.0	FAQ25K106G402GL5
250	4.7	42	30	16	37.5	\	7.0	282	846	7.5	24	40.8	60	1.0	FAQ25K475K142KL5
250	5.0	42	30	16	37.5	\	8.0	300	900	7.0	24	33.5	60	1.0	FAQ25K505K142KL5
250	6.0	42	30	16	37.5	\	9.0	360	1080	6.0	24	30.9	60	1.0	FAQ25K605K142KL5
250	6.5	42	30	16	37.5	\	10.0	390	1170	5.6	24	26.8	60	1.0	FAQ25K655K142KL5
250	6.8	42	32	19	37.5	\	10.5	408	1224	5.4	24	25.2	60	1.0	FAQ25K685K212KL5
250	7.5	42	32	19	37.5	\	11.0	450	1350	5.0	24	24.8	60	1.0	FAQ25K755K212KL5
250	8.0	42	37	22	37.5	\	12.0	480	1440	4.5	24	23.1	60	1.0	FAQ25K805K274KL5
250	10	42	37	22	37.5	\	13.0	600	1800	3.6	24	24.7	60	1.0	FAQ25K106K274KL5
250	12	42	44	24	37.5	\	14.0	720	2160	3.0	24	25.5	60	1.0	FAQ25K126K324KL5
250	15	42	44	24	37.5	\	14.0	900	2700	2.5	24	30.6	60	1.0	FAQ25K156K322KL5
250	18	42	43	28	37.5	\	15.0	1080	3240	2.2	26	30.3	60	1.0	FAQ25K186K392KL5
250	20	42	45	30	37.5	\	15.0	1200	3600	2.0	26	33.3	60	1.0	FAQ25K206K422KL5
250	22	42	50	35	37.5	20.3	18.0	1320	3960	1.8	28	25.7	60	1.2	FAQ25K226K474KD5
250	25	57.5	45	30	52.5	20.3	18.0	750	2250	3.2	30	14.5	30	1.2	FAQ25K256M164MD5
250	30	57.5	45	30	52.5	20.3	20.0	900	2700	2.8	30	13.4	30	1.2	FAQ25K306M164MD5
250	35	57.5	50	35	52.5	20.3	24.0	1050	3150	2.4	32	10.9	30	1.2	FAQ25K356M204MD5
250	40	57.5	57.5	38	52.5	20.3	26.0	1200	3600	2.0	32	11.1	30	1.2	FAQ25K406M474MD5
300	1.0	32	20	11	27.5	\	4.0	90	270	12.5	16	75.0	90	0.8	FAQ30K105G182GL5
300	1.5	32	22	13	27.5	\	5.0	135	405	8.5	16	70.6	90	0.8	FAQ30K155G212GL5
300	2.0	32	24.5	15	27.5	\	6.0	180	540	7.5	16	55.6	90	0.8	FAQ30K205G272GL5
300	2.2	32	24.5	15	27.5	\	7.0	198	594	6.8	16	45.0	90	0.8	FAQ30K225G272GL5
300	2.5	32	28	14	27.5	\	8.0	225	675	6.5	18	36.1	90	0.8	FAQ30K255G262GL5
300	3.0	32	28	18	27.5	\	9.0	270	810	6.0	20	30.9	90	0.8	FAQ30K305G332GL5
300	3.3	32	33	18	27.5	\	10.0	297	891	4.8	20	31.3	90	0.8	FAQ30K335G342GL5
300	3.5	32	33	18	27.5	\	10.5	315	945	4.6	20	29.6	90	0.8	FAQ30K355G342GL5
300	4.0	32	33	18	27.5	\	11.0	360	1080	4.2	20	29.5	90	0.8	FAQ30K405G342GL5
300	4.7	32	37	22	27.5	\	13.0	423	1269	3.8	22	23.4	90	1.0	FAQ30K475G402GL5
300	5.0	32	37	22	27.5	\	13.5	450	1350	3.6	22	22.9	90	1.0	FAQ30K505G402GL5
300	5.6	32	37	22	27.5	\	14.0	504	1512	3.0	22	25.5	90	1.0	FAQ30K565G402GL5

Metallized Polypropylene Film AC Filtering Capacitors

FAQ Series – 180VAC ~ 760VAC (Automotive Grade)



Rating and Part Number

Vac	Cap Value μF	Dimensions					I rms 10KHz A 70°C	Peak Current A	Surge Current A	ESR ^{Typical} 10KHz mΩ	ESL nH	Thermal Res °C/W	dv/dt V/us	Lead Wire mm	Part Number
		W mm	H mm	T mm	P mm	P1 mm									
300	3.0	42	30	16	37.5	\	6.0	180	540	9.0	24	46.3	60	1.0	FAQ30K305K142KL5
300	3.3	42	30	16	37.5	\	7.0	198	594	8.5	24	36.0	60	1.0	FAQ30K335K142KL5
300	3.5	42	30	16	37.5	\	7.0	210	630	8.0	24	38.3	60	1.0	FAQ30K355K142KL5
300	4.0	42	30	16	37.5	\	8.0	240	720	6.8	24	34.5	60	1.0	FAQ30K405K142KL5
300	4.5	42	30	16	37.5	\	9.0	270	810	6.0	24	30.9	60	1.0	FAQ30K455K142KL5
300	4.7	42	30	16	37.5	\	9.0	282	846	5.8	24	31.9	60	1.0	FAQ30K475K142KL5
300	5.0	42	32	19	37.5	\	10.0	300	900	5.5	24	27.3	60	1.0	FAQ30K505K212KL5
300	6.0	42	32	19	37.5	\	11.0	360	1080	5.0	24	24.8	60	1.0	FAQ30K605K212KL5
300	6.8	42	37	22	37.5	\	12.0	408	1224	4.5	24	23.1	60	1.0	FAQ30K685K274KL5
300	8.0	42	37	22	37.5	\	13.0	480	1440	3.6	24	24.7	60	1.0	FAQ30K805K274KL5
300	10	42	44	24	37.5	\	14.0	600	1800	3.0	24	25.5	60	1.0	FAQ30K106K324KL5
300	12	42	43	28	37.5	\	15.0	720	2160	2.4	26	27.8	60	1.0	FAQ30K126K392KL5
300	15	42	45	30	37.5	\	15.0	900	2700	2.2	26	30.3	60	1.0	FAQ30K156K422KL5
300	18	42	50	35	37.5	20.3	18.0	1080	3240	2.0	28	23.1	60	1.2	FAQ30K186K474KD5
300	18	57.5	45	30	52.5	20.3	16.0	540	1620	3.5	30	16.7	30	1.2	FAQ30K186M164MD5
300	20	57.5	45	30	52.5	20.3	18.0	600	1800	3.2	30	14.5	30	1.2	FAQ30K206M164MD5
300	25	57.5	50	35	52.5	20.3	20.0	750	2250	3.0	32	12.5	30	1.2	FAQ30K256M204MD5
300	30	57.5	57.5	38	52.5	20.3	24.0	900	2700	2.4	32	10.9	30	1.2	FAQ30K306M474MD5
350	0.33	32	18	9	27.5	\	1.5	33	99	45.0	16	148.1	100	0.8	FAQ35K334G152GL5
350	0.39	32	18	9	27.5	\	1.6	39	117	40.0	16	146.5	100	0.8	FAQ35K394G152GL5
350	0.47	32	18	9	27.5	\	2.0	47	141	35.0	16	107.1	100	0.8	FAQ35K474G152GL5
350	0.68	32	20	11	27.5	\	2.5	68	204	24.0	16	100.0	100	0.8	FAQ35K684G182GL5
350	0.82	32	22	13	27.5	\	3.0	82	246	20.5	16	81.3	100	0.8	FAQ35K824G212GL5
350	1.0	32	22	13	27.5	\	3.2	100	300	15.5	16	94.5	100	0.8	FAQ35K105G212GL5
350	1.5	32	24.5	15	27.5	\	4.0	150	450	13.0	16	72.1	100	0.8	FAQ35K155G272GL5
350	2.0	32	28	18	27.5	\	4.8	200	600	10.8	18	60.3	100	0.8	FAQ35K205G332GL5
350	2.2	32	28	18	27.5	\	5.0	220	660	10.2	18	58.8	100	0.8	FAQ35K225G332GL5
350	2.5	32	33	18	27.5	\	6.0	250	750	7.0	20	59.5	100	0.8	FAQ35K255G342GL5
350	3.0	32	37	22	27.5	\	7.0	300	900	5.8	22	52.8	100	1.0	FAQ35K305G402GL5
350	3.3	32	37	22	27.5	\	7.5	330	990	5.2	22	51.3	100	1.0	FAQ35K335G402GL5
350	3.5	32	37	22	27.5	\	7.8	350	1050	5.0	22	49.3	100	1.0	FAQ35K355G402GL5
350	4.0	32	37	22	27.5	\	8.0	400	1200	4.5	22	52.1	100	1.0	FAQ35K405G402GL5
350	2.0	42	30	16	37.5	\	4.5	140	420	12.8	24	57.9	70	1.0	FAQ35K205K142KL5
350	2.2	42	30	16	37.5	\	4.8	154	462	12.5	24	52.1	70	1.0	FAQ35K225K142KL5
350	2.5	42	30	16	37.5	\	5.2	175	525	11.8	24	47.0	70	1.0	FAQ35K255K142KL5
350	3.0	42	30	16	37.5	\	5.5	210	630	10.8	24	45.9	70	1.0	FAQ35K305K142KL5
350	3.3	42	30	16	37.5	\	6.0	231	693	8.8	24	47.3	70	1.0	FAQ35K335K142KL5
350	3.5	42	30	16	37.5	\	6.5	245	735	8.6	24	41.3	70	1.0	FAQ35K355K142KL5
350	4.0	42	32	19	37.5	\	7.0	280	840	8.0	24	38.3	70	1.0	FAQ35K405K212KL5
350	4.5	42	37	22	37.5	\	8.0	315	945	7.0	24	33.5	70	1.0	FAQ35K455K274KL5
350	5.0	42	37	22	37.5	\	8.5	350	1050	6.8	24	30.5	70	1.0	FAQ35K505K274KL5
350	5.5	42	37	22	37.5	\	8.8	385	1155	6.4	24	30.3	70	1.0	FAQ35K555K274KL5
350	6.0	42	44	24	37.5	\	9.5	420	1260	6.0	24	27.7	70	1.0	FAQ35K605K324KL5
350	6.5	42	44	24	37.5	\	10.0	455	1365	5.5	24	27.3	70	1.0	FAQ35K655K324KL5
350	7.0	42	44	24	37.5	\	10.5	490	1470	5.2	24	26.2	70	1.0	FAQ35K705K324KL5
350	8.0	42	44	24	37.5	\	10.5	560	1680	5.2	24	26.2	70	1.0	FAQ35K805K324KL5
350	8.5	42	43	28	37.5	\	11.0	595	1785	4.8	26	25.8	70	1.0	FAQ35K855K392KL5
350	9.0	42	43	28	37.5	\	11.0	630	1890	4.6	26	26.9	70	1.0	FAQ35K905K392KL5
350	9.5	42	45	30	37.5	\	11.5	665	1995	4.4	26	25.8	70	1.0	FAQ35K955K422KL5
350	10	42	45	30	37.5	\	12.0	700	2100	4.2	26	24.8	70	1.0	FAQ35K106K422KL5
350	12	42	50	35	37.5	20.3	14.0	840	2520	3.6	28	21.3	70	1.2	FAQ35K126K474KD5
350	15	57.5	45	30	52.5	20.3	16.5	600	1800	3.5	30	15.7	40	1.2	FAQ35K156M164MD5
350	18	57.5	50	35	52.5	20.3	18.0	720	2160	3.0	32	15.4	40	1.2	FAQ35K186M204MD5
350	20	57.5	57.5	38	52.5	20.3	20.0	800	2400	2.8	32	13.4	40	1.2	FAQ35K206M474MD5
350	22	57.5	57.5	38	52.5	20.3	22.0	880	2640	2.6	32	11.9	40	1.2	FAQ35K226M474MD5
350	25	57.5	55	45	52.5	20.3	24.0	1000	3000	2.4	32	10.9	40	1.2	FAQ35K256M324MD5

Metallized Polypropylene Film AC Filtering Capacitors

FAQ Series – 180VAC ~ 760VAC (Automotive Grade)



Rating and Part Number

Vac	Cap Value μF	Dimensions					I rms 10KHz A 70°C	Peak Current A	Surge Current A	ESR ^{Typical} 10KHz mΩ	ESL nH	Thermal Res °C/W	dv/dt V/us	Lead Wire mm	Part Number
		W mm	H mm	T mm	P mm	P1 mm									
350	30	57.5	65	45	52.5	20.3	26.0	1200	3600	2.2	32	10.1	40	1.2	FAQ35K306M344MD5
400	0.33	32	18	9	27.5	\	1.5	40	119	45.0	16	148.1	120	0.8	FAQ40K334G152GL5
400	0.39	32	18	9	27.5	\	1.6	47	140	40.0	16	146.5	120	0.8	FAQ40K394G152GL5
400	0.47	32	18	9	27.5	\	2.0	56	169	35.0	16	107.1	120	0.8	FAQ40K474G152GL5
400	0.68	32	20	11	27.5	\	2.5	82	245	24.0	16	100.0	120	0.8	FAQ40K684G182GL5
400	0.82	32	22	13	27.5	\	3.0	98	295	20.5	16	81.3	120	0.8	FAQ40K824G212GL5
400	1.0	32	24	14	27.5	\	3.2	120	360	15.5	16	94.5	120	0.8	FAQ40K105G252GL5
400	1.5	32	28	18	27.5	\	4.8	180	540	10.8	18	60.3	120	0.8	FAQ40K155G332GL5
400	2.0	32	33	18	27.5	\	6.0	240	720	7.0	20	59.5	120	0.8	FAQ40K205G342GL5
400	2.2	32	33	18	27.5	\	6.0	264	792	7.0	20	59.5	120	0.8	FAQ40K225G342GL5
400	2.5	32	37	22	27.5	\	7.0	300	900	5.8	22	52.8	120	1.0	FAQ40K255G402GL5
400	3.0	32	37	22	27.5	\	7.5	360	1080	5.2	22	51.3	120	1.0	FAQ40K305G402GL5
400	2.0	42	30	16	37.5	\	4.5	160	480	12.8	24	57.9	80	1.0	FAQ40K205K142KL5
400	2.2	42	30	16	37.5	\	4.8	176	528	12.5	24	52.1	80	1.0	FAQ40K225K142KL5
400	2.5	42	30	16	37.5	\	5.2	200	600	11.8	24	47.0	80	1.0	FAQ40K255K142KL5
400	3.0	42	32	19	37.5	\	6.0	240	720	8.8	24	47.3	80	1.0	FAQ40K305K212KL5
400	3.3	42	32	19	37.5	\	6.5	264	792	8.6	24	41.3	80	1.0	FAQ40K335K212KL5
400	3.5	42	37	22	37.5	\	7.0	280	840	8.0	24	38.3	80	1.0	FAQ40K355K274KL5
400	4.0	42	37	22	37.5	\	8.0	320	960	7.0	24	33.5	80	1.0	FAQ40K405K274KL5
400	4.5	42	37	22	37.5	\	8.5	360	1080	6.8	24	30.5	80	1.0	FAQ40K455K274KL5
400	5.0	42	44	24	37.5	\	9.5	400	1200	6.0	24	27.7	80	1.0	FAQ40K505K324KL5
400	5.5	42	44	24	37.5	\	10.0	440	1320	5.5	24	27.3	80	1.0	FAQ40K555K324KL5
400	6.0	42	43	28	37.5	\	10.5	480	1440	4.8	26	28.3	80	1.0	FAQ40K605K392KL5
400	6.5	42	43	28	37.5	\	10.5	520	1560	4.6	26	29.6	80	1.0	FAQ40K655K392KL5
400	7.0	42	43	28	37.5	\	11.0	560	1680	4.4	26	28.2	80	1.0	FAQ40K705K392KL5
400	7.5	42	45	30	37.5	\	11.0	600	1800	4.4	26	28.2	80	1.0	FAQ40K755K422KL5
400	8.0	42	45	30	37.5	\	11.5	640	1920	4.2	26	27.0	80	1.0	FAQ40K805K422KL5
400	9.0	42	50	35	37.5	20.3	12.5	720	2160	4.0	28	24.0	80	1.2	FAQ40K905K474KD5
400	10	42	50	35	37.5	20.3	14.0	800	2400	3.6	28	21.3	80	1.2	FAQ40K106K474KD5
400	10	57.5	45	30	52.5	20.3	12.5	500	1500	4.2	30	22.9	50	1.2	FAQ40K106M164MD5
400	12	57.5	50	35	52.5	20.3	14.0	600	1800	3.8	32	20.1	50	1.2	FAQ40K126M204MD5
400	14	57.5	50	35	52.5	20.3	16.0	700	2100	3.6	32	16.3	50	1.2	FAQ40K146M204MD5
400	18	57.5	57.5	38	52.5	20.3	20.0	900	2700	3.0	32	12.5	50	1.2	FAQ40K186M474MD5
400	20	57.5	55	45	52.5	20.3	22.0	1000	3000	2.8	32	11.1	50	1.2	FAQ40K206M324MD5
400	22	57.5	65	45	52.5	20.3	24.0	1100	3300	2.5	32	10.4	50	1.2	FAQ40K226M344MD5
400	25	57.5	65	45	52.5	20.3	26.0	1250	3750	2.2	32	10.1	50	1.2	FAQ40K256M344MD5
500	0.22	32	18	9	27.5	\	1.5	31	92	45.0	16	148.1	140	0.8	FAQ50K224G152GL5
500	0.27	32	18	9	27.5	\	1.6	38	113	40.0	16	146.5	140	0.8	FAQ50K274G152GL5
500	0.33	32	20	11	27.5	\	2.5	46	139	24.0	16	100.0	140	0.8	FAQ50K334G182GL5
500	0.39	32	20	11	27.5	\	2.5	55	164	24.0	16	100.0	140	0.8	FAQ50K394G182GL5
500	0.47	32	22	13	27.5	\	2.8	66	197	21.5	16	89.0	140	0.8	FAQ50K474G212GL5
500	0.56	32	22	13	27.5	\	3.0	78	235	20.5	16	81.3	140	0.8	FAQ50K564G212GL5
500	0.68	32	24.5	15	27.5	\	3.5	95	286	15.5	16	79.0	140	0.8	FAQ50K684G272GL5
500	0.82	32	28	18	27.5	\	4.8	115	344	12.5	18	52.1	140	0.8	FAQ50K824G332GL5
500	1.0	32	33	18	27.5	\	6.0	140	420	9.0	20	46.3	140	0.8	FAQ50K105G342GL5
500	1.2	32	33	18	27.5	\	6.0	168	504	9.0	20	46.3	140	0.8	FAQ50K125G342GL5
500	1.5	32	37	22	27.5	\	7.0	210	630	8.5	22	36.0	140	1.0	FAQ50K155G402GL5
500	1.8	32	37	22	27.5	\	7.5	252	756	7.8	22	34.2	140	1.0	FAQ50K185G402GL5
500	1.0	42	30	16	37.5	\	4.5	90	270	12.8	24	57.9	90	1.0	FAQ50K105K142KL5
500	1.2	42	30	16	37.5	\	4.8	108	324	12.5	24	52.1	90	1.0	FAQ50K125K142KL5
500	1.5	42	30	16	37.5	\	5.2	135	405	11.8	24	47.0	90	1.0	FAQ50K155K142KL5
500	1.8	42	32	19	37.5	\	6.0	162	486	9.0	24	46.3	90	1.0	FAQ50K185K212KL5
500	2.0	42	32	19	37.5	\	6.5	180	540	8.6	24	41.3	90	1.0	FAQ50K205K212KL5
500	2.5	42	37	22	37.5	\	7.0	225	675	8.0	24	38.3	90	1.0	FAQ50K255K274KL5
500	2.8	42	37	22	37.5	\	8.0	252	756	7.0	24	33.5	90	1.0	FAQ50K285K274KL5
500	3.0	42	37	22	37.5	\	8.5	270	810	6.8	24	30.5	90	1.0	FAQ50K305K274KL5

Metallized Polypropylene Film AC Filtering Capacitors

FAQ Series – 180VAC ~ 760VAC (Automotive Grade)



Rating and Part Number

Vac	Cap Value μF	Dimensions					I rms 10KHz A 70°C	Peak Current A	Surge Current A	ESR ^{Typical} 10KHz mΩ	ESL nH	Thermal Res °C/W	dv/dt V/us	Lead Wire mm	Part Number
		W mm	H mm	T mm	P mm	P1 mm									
500	3.5	42	44	24	37.5	\	9.5	315	945	6.0	24	27.7	90	1.0	FAQ50K355K324KL5
500	4.0	42	43	28	37.5	\	10.5	360	1080	4.8	26	28.3	90	1.0	FAQ50K405K392KL5
500	4.5	42	43	28	37.5	\	10.5	405	1215	4.8	26	28.3	90	1.0	FAQ50K455K392KL5
500	5.0	42	45	30	37.5	\	11.0	450	1350	4.5	26	27.5	90	1.0	FAQ50K505K422KL5
500	5.5	42	50	35	37.5	20.3	12.5	495	1485	4.2	28	22.9	90	1.2	FAQ50K555K474KD5
500	6.0	42	50	35	37.5	20.3	14.0	540	1620	3.8	28	20.1	90	1.2	FAQ50K605K474KD5
500	7.0	57.5	45	30	52.5	20.3	12.5	420	1260	4.2	30	22.9	60	1.2	FAQ50K705M164MD5
500	8.0	57.5	50	35	52.5	20.3	14.0	480	1440	3.8	32	20.1	60	1.2	FAQ50K805M204MD5
500	9.0	57.5	50	35	52.5	20.3	16.0	540	1620	3.6	32	16.3	60	1.2	FAQ50K905M204MD5
500	10	57.5	57.5	38	52.5	20.3	18.0	600	1800	3.4	32	13.6	60	1.2	FAQ50K106M474MD5
500	12	57.5	57.5	38	52.5	20.3	20.0	720	2160	3.2	32	11.7	60	1.2	FAQ50K126M474MD5
500	15	57.5	65	45	52.5	20.3	22.0	900	2700	3.0	32	10.3	60	1.2	FAQ50K156M344MD5
600	0.15	32	18	9	27.5	\	1.5	24	72	45.0	16	148.1	160	0.8	FAQ60K154G152GL5
600	0.22	32	20	11	27.5	\	2.5	35	106	24.0	16	100.0	160	0.8	FAQ60K224G182GL5
600	0.33	32	22	13	27.5	\	2.8	53	158	21.5	16	89.0	160	0.8	FAQ60K334G212GL5
600	0.47	32	24.5	15	27.5	\	3.2	75	226	15.5	16	94.5	160	0.8	FAQ60K474G272GL5
600	0.56	32	28	14	27.5	\	4.0	90	269	12.5	18	75.0	160	0.8	FAQ60K564G262GL5
600	0.68	32	28	18	27.5	\	4.8	109	326	10.8	18	60.3	160	0.8	FAQ60K684G332GL5
600	0.82	32	33	18	27.5	\	6.0	131	394	7.0	20	59.5	160	0.8	FAQ60K824G342GL5
600	1.0	32	33	18	27.5	\	6.0	160	480	7.0	20	59.5	160	0.8	FAQ60K105G342GL5
600	1.2	32	37	22	27.5	\	7.0	192	576	5.8	22	52.8	160	1.0	FAQ60K125G402GL5
600	1.0	42	30	16	37.5	\	4.5	100	300	12.8	24	57.9	100	1.0	FAQ60K105K142KL5
600	1.2	42	32	19	37.5	\	6.0	120	360	8.8	24	47.3	100	1.0	FAQ60K125K212KL5
600	1.5	42	32	19	37.5	\	6.5	150	450	8.6	24	41.3	100	1.0	FAQ60K155K212KL5
600	1.8	42	37	22	37.5	\	7.0	180	540	8.0	24	38.3	100	1.0	FAQ60K185K274KL5
600	2.0	42	37	22	37.5	\	8.0	200	600	7.0	24	33.5	100	1.0	FAQ60K205K274KL5
600	2.2	42	44	24	37.5	\	9.0	220	660	6.5	24	28.5	100	1.0	FAQ60K225K324KL5
600	2.5	42	44	24	37.5	\	9.5	250	750	6.0	24	27.7	100	1.0	FAQ60K255K324KL5
600	2.8	42	43	28	37.5	\	10.0	280	840	5.5	26	27.3	100	1.0	FAQ60K285K392KL5
600	3.0	42	45	30	37.5	\	10.5	300	900	5.0	26	27.2	100	1.0	FAQ60K305K422KL5
600	3.5	42	50	35	37.5	20.3	12.5	350	1050	4.5	28	21.3	100	1.2	FAQ60K335K474KD5
600	4.0	42	50	35	37.5	20.3	14.0	400	1200	4.0	28	19.1	100	1.2	FAQ60K405K474KD5
600	4.5	57.5	45	30	52.5	20.3	12.5	315	945	4.5	30	21.3	70	1.2	FAQ60K455M164MD5
600	5.0	57.5	45	30	52.5	20.3	13.5	350	1050	4.2	30	19.6	70	1.2	FAQ60K505M164MD5
600	6.0	57.5	50	35	52.5	20.3	14.0	420	1260	4.0	32	19.1	70	1.2	FAQ60K605M204MD5
600	6.5	57.5	50	35	52.5	20.3	16.0	455	1365	3.8	32	15.4	70	1.2	FAQ60K655M204MD5
600	7.0	57.5	57.5	38	52.5	20.3	18.0	490	1470	3.6	32	12.9	70	1.2	FAQ60K705M474MD5
600	7.5	57.5	57.5	38	52.5	20.3	19.0	525	1575	3.4	32	12.2	70	1.2	FAQ60K755M474MD5
600	8.0	57.5	57.5	38	52.5	20.3	20.0	560	1680	3.2	32	11.7	70	1.2	FAQ60K805M474MD5
600	10	57.5	65	45	52.5	20.3	22.0	700	2100	3.0	32	10.3	70	1.2	FAQ60K106M344MD5
760	0.1	32	18	9	27.5	\	1.5	20	60	45.0	16	148.1	200	0.8	FAQ76K104G152GL5
760	0.15	32	20	11	27.5	\	2.5	30	90	24.0	16	100.0	200	0.8	FAQ76K154G182GL5
760	0.22	32	22	13	27.5	\	2.8	44	132	21.5	16	89.0	200	0.8	FAQ76K224G212GL5
760	0.33	32	24.5	15	27.5	\	3.2	66	198	15.5	16	94.5	200	0.8	FAQ76K334G272GL5
760	0.47	32	28	18	27.5	\	4.5	94	282	12.0	18	61.7	200	0.8	FAQ76K474G332GL5
760	0.56	32	33	18	27.5	\	5.0	112	336	10.5	20	57.1	200	0.8	FAQ76K564G342GL5
760	0.68	32	37	22	27.5	\	6.0	136	408	9.5	22	43.9	200	1.0	FAQ76K684G402GL5
760	0.68	42	30	16	37.5	\	4.5	82	245	12.8	24	57.9	120	1.0	FAQ76K684K142KL5
760	0.82	42	32	19	37.5	\	5.5	98	295	10.0	24	49.6	120	1.0	FAQ76K824K212KL5
760	1.0	42	32	19	37.5	\	6.5	120	360	9.0	24	39.4	120	1.0	FAQ76K105K212KL5
760	1.2	42	37	22	37.5	\	7.0	144	432	8.5	24	36.0	120	1.0	FAQ76K125K274KL5
760	1.5	42	44	24	37.5	\	8.0	180	540	7.5	24	31.3	120	1.0	FAQ76K155K324KL5
760	1.8	42	43	28	37.5	\	9.5	216	648	6.5	26	25.6	120	1.0	FAQ76K185K392KL5
760	2.0	42	45	30	37.5	\	10.5	240	720	5.0	26	27.2	120	1.0	FAQ76K205K422KL5
760	2.5	42	50	35	37.5	20.3	12.5	300	900	4.5	28	21.3	120	1.2	FAQ76K255K474KD5
760	3.0	57.5	45	30	52.5	20.3	12.5	240	720	4.5	30	21.3	80	1.2	FAQ76K305M164MD5



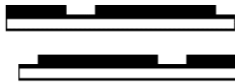


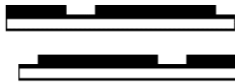


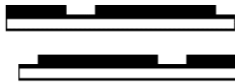
Rating and Part Number

Vac	Cap Value μF	Dimensions					I rms 10KHz A 70°C	Peak Current A	Surge Current A	ESR _{Typical} 10KHz mΩ	ESL nH	Thermal Res °C/W	dv/dt V/us	Lead Wire mm	Part Number
		W mm	H mm	T mm	P mm	P1 mm									
760	4.0	57.5	50	35	52.5	20.3	14.0	320	960	4.0	32	19.1	80	1.2	FAQ76K405M204MD5
760	5.0	57.5	57.5	38	52.5	20.3	16.0	400	1200	3.6	32	16.3	80	1.2	FAQ76K505M474MD5
760	6.0	57.5	55	45	52.5	20.3	18.0	480	1440	3.4	32	13.6	80	1.2	FAQ76K605M324MD5
760	7.0	57.5	65	45	52.5	20.3	20.0	560	1680	3.2	32	11.7	80	1.2	FAQ76K705M344MD5

General Technical Data

Applications	AC Filtering
Dielectric	Metallized Polypropylene Film
Reference Standard	IEC 61071/EN 61071/AEC-Q200D
Climatic Category	55/105/56 IEC 60068-1
Operating Temperature Range	-55°C ~ +105°C (85°C ~105°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
Storage Life	Product that passed less than 2 years from production, No need reconfirmation
RoHS Compliance	Compliant with the restricted substance requirement of Directive 2011/65/EU
Flame Retardant Grade	Flame retardant performance accords with horizontal combustion grade HB and vertical combustion grade V-0.

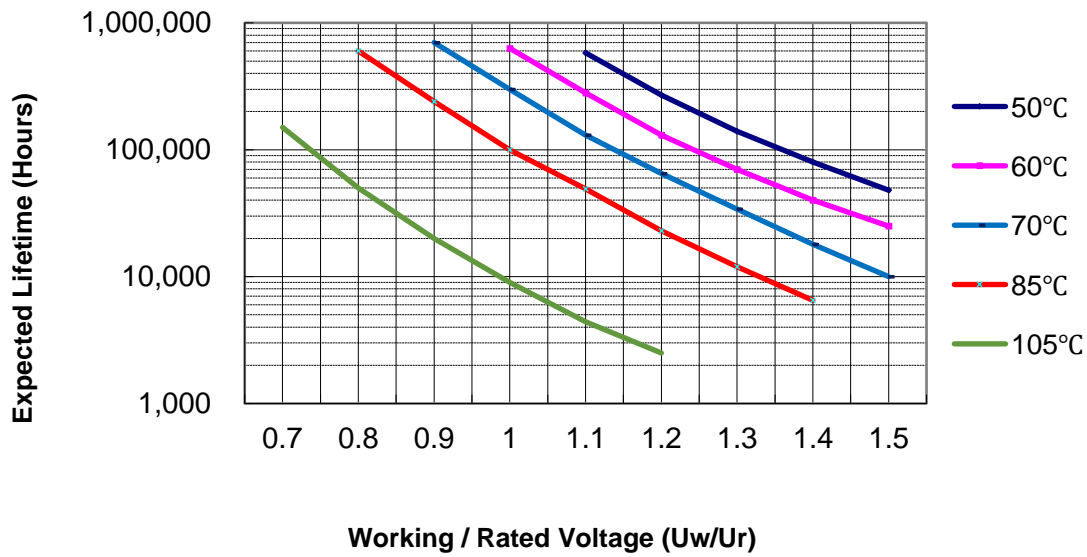
Construction

Metallized Film	OPP & Al/Zn						
Metal Sprayed	Sn/Zn Alloy						
Connection Electrode	Tinned copper wires						
Case	Plastic Case (UL94V-0)						
Filling	Epoxy Resin (UL94V-0)						
Film Construction	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center; width: 33%;">Mono Structure</td> <td colspan="2" style="text-align: center;">Internal Series Connection</td> </tr> <tr> <td style="text-align: center;">  </td> <td style="text-align: center;">  </td> <td style="text-align: center;">  </td> </tr> </table>	Mono Structure	Internal Series Connection				
Mono Structure	Internal Series Connection						
							

Electrical Characteristics

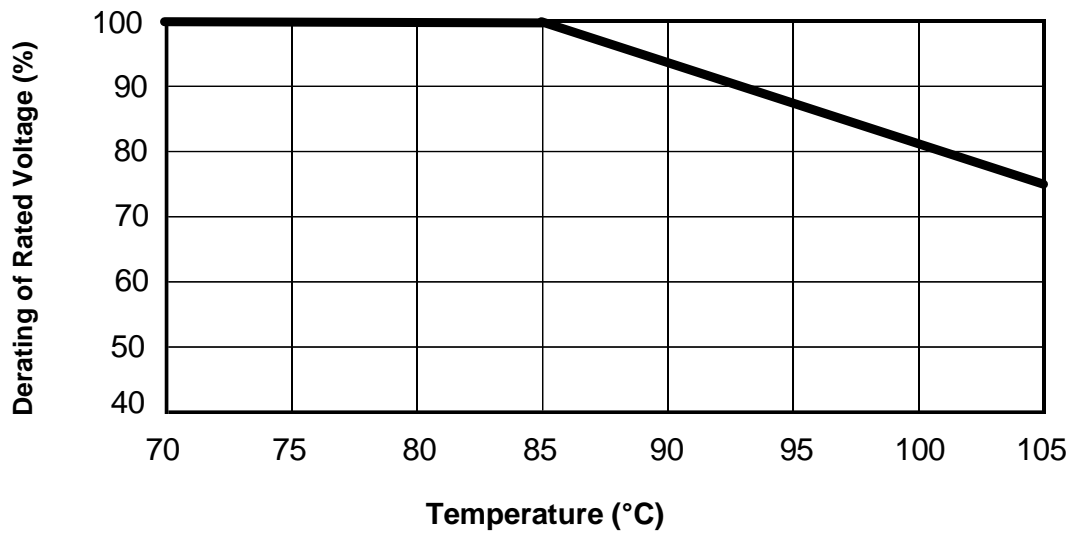
Voltage Range	180Vac ~ 760Vac
Capacitance Range	0.1uF ~60uF
Capacitance Tolerance	±5% or ±10% at +25°C
Capacitance	Measuring Frequency at 1kHz Measuring Voltage:1±0.2V
Standard Atmospheric Conditions for Static Test	<p>Ambient temperature 15°C to 35°C (If there is any doubt on the results, the measurements shall be made at +20 +/- 5°C)</p> <p>Relative humidity 45% to 75% (If there is any doubt on the results, the measurements shall be made at 60% to 70 %.)</p> <p>Air pressure 86 kPa to 106 kPa.</p>
Voltage Between Terminals U_{TT}	1.5 x V_R Vac for 10 seconds (between terminations) @ +25°C ±5°C
Voltage Between Terminals and Case U_{TC}	3000V _{AC} , 50/60Hz 60s (at+25+/-5°C)
Dielectric Dissipation Factor $Tg\delta_0$	≤2×10 ⁻⁴
Dissipation factor	≤ 0.002 (0.20%) at 1 KHz. C≤20uF at +25°C ≤ 0.003 (0.30%) at 1 KHz. C>20uF at +25°C
Insulation Resistance	RC between leads, IR xC≥30,000 s at 100vdc 1minute at +25°C
Self-Inductance	<1nH per mm of lead spacing
Hot-Spot	≤85°C
Life Expectancy	100,000 hours (UR, Θhotspot=85°C)
Failure Rate	100 Fit
Max. Altitude	2000 m
Overvoltage	Maximum duration within one day
Apply 110% of rated voltage	30% of on-load duration
Apply 115% of rated voltage	30 mins
Apply 120% of rated voltage	5 mins
Apply 130% of rated voltage	1 min

Expected Life Curve

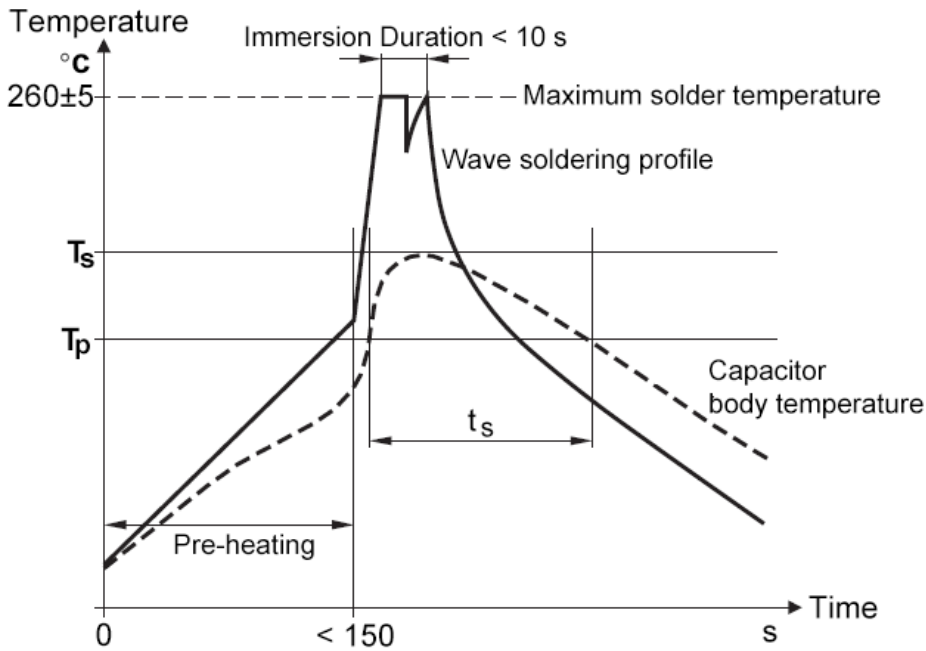


Derating of Rated Voltage Vs Temperature

(85°C ~105°C, decreasing factor 1.35% per °C for Urms)



Wave Soldering Recommendations

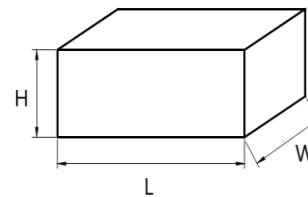


T_s : Capacitor body maximum temperature at wave soldering
 T_p : Capacitor body maximum temperature at pre-heating

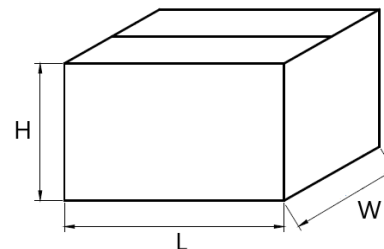
Polypropylene Capacitors	Polyester Capacitors
During pre-heating: $T_p \leq 110^\circ\text{C}$ During soldering: $T_s \leq 120^\circ\text{C}$, $t_s \leq 60$	During pre-heating: $T_p \leq 130^\circ\text{C}$ During soldering: $T_s \leq 160^\circ\text{C}$, $t_s \leq 60\text{s}$

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
27.5	G15	32	18	9	340	340
	G18	32	20	11	280	280
	G21	32	22	13	230	230
	G25	32	24	14	220	220
	G26	32	28	14	220	220
	G27	32	24.5	15	200	200
	G33	32	28	18	170	170
	G34	32	33	18	170	170
37.5	G40	32	37	22	140	140
	K14	42	30	16	133	133
	K21	42	32	19	112	112
	K27	42	37	22	98	98
	K32	42	44	24	91	91
	K39	42	43	28	77	77
52.5	K42	42	45	30	70	70
	K47	42	50	35	63	63
	M16	57.5	45	30	50	50
	M20	57.5	50	35	45	45
	M32	57.5	55	45	35	35
	M34	57.5	65	45	35	35
	M47	57.5	57.5	38	40	40

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.

Disclaimer

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