Leaded Aluminium Electrolytic Capacitors

Feature:

- 105°C high-temperature resistance, standard product, for general purposes.

Specifications:

Items	Characteristics		
Capacitance Tolerance	±20% (120Hz, 20°C)		
Operating Temperature Range	-40°C to +105°C	-40°C to +105°C	-25°C to +105°C
Rated Voltage Range	6.3~100V	160~250V	350~450V
Leakage Current	I ≦ 0.01CV or 3 (μA), Which is greater. (After 2 minutes application of working voltage)	I ≦ 0.03CV +20 (μA), (After 3 minutes application of working voltage)	

Dissipation Factor (tan δ)

Measurement Frequency: 120Hz. Temperature: 20°C

Rated Voltage(V)	6.3	10	16	25	35	50	63	80	100	160~250	350~450
tan δ(Max)	0.24	0.2	0.16	0.15	0.12	0.1	0.09	0.08	0.08	0.2	0.25

When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase. 20°C 120Hz

Low Temperature Stability Impedance Ratio(Max)

Measurement Frequency:120Hz.

Rated Voltage(V)	6.3	10	16	25	35	50~100	160~250	350~400	450
Z(-25°C) /Z(20°C)	5	4	3	2	2	2	3	6	15
Z(-40°C) /Z(20°C)	10	8	6	4	3	3	4	-	-

Load Life

2000 hours,with application of working voltage at 105°C

Capacitance Change	Within ±25% of Initial Value
tan δ	200% or less of Initial Specified Value
Leakage Current	Initial Specified Value or less

Shelf Life

2000 hours, no voltage applied, at 105°C. After Test : Ur to be applied for 30 minutes, 24 to 48 hours before measurement.

Capacitance Change	Within ±20% of Initial Value
tan δ	200% or less of Initial Specified Value
Leakage Current	Initial Specified Value or less

Standards	JIS C 5141 and JIS C 5102

Permissible Ripple Current

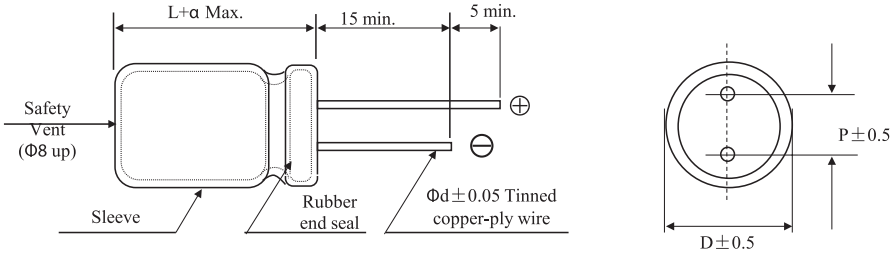
TEMP. (°C)	60	70	85	105
Coefficient	1.85	1.65	1.4	1

Frequency Coefficient

WV (V)	Capacitance (μF)	Frequency (Hz)			
		50	120	1K	≧10K
≦100	<100	0.75	1	1.57	2
	100~470	0.8	1	1.34	1.5
	>470	0.85	1	1.1	1.15
≧160	0.47~470	0.85	1	1.4	1.5

MCKSK Series

Dimensions: (mm)



ΦD	5	6.3	8	10	13	16	18	22	25
P	2	2.5	3.5	5	5	7.5	7.5	10	12.5
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8	1

α	(L<16) 1 L≧16) 2

Standard Ratings

D×L(mm) ; R.C.(mA rms) at 105°C, 120Hz

Cap (μF)	WV (V) (Code)	6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)		63 (1J)		100 (2A)	
	Item	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.
0.1~0.47		-	-	-	-	-	-	-	-	-	-	5×11	11	5×11	12	5×11	17
1.0		-	-	-	-	-	-	-	-	-	-	5×11	15	5×11	17	5×11	20
2.2		-	-	-	-	-	-	-	-	-	-	5×11	24	5×11	25	5×11	30
3.3		-	-	-	-	-	-	-	-	-	-	5×11	30	5×11	31	5×11	36
4.7		-	-	-	-	-	-	5×11	30	5×11	31	5×11	36	5×11	37	6.3×12	44
6.8		-	-	-	-	-	-	5×11	35	5×11	37	5×11	46	5×11	51	5×11	45
10		-	-	-	-	5×11	42	5×11	43	5×11	47	5×11	54	5×11	58	6.3×11	75
22		5×11	54	5×11	59	5×11	63	5×11	65	5×11	75	5×11	83	6.3×11	109	8×12	112
33		5×11	66	5×11	77	5×11	79	5×11	83	5×11	91	5×11	97	8×12	121	8×12	133
47		5×11	78	5×11	87	5×11	94	5×11	97	6.3×11	116	6.3×11	145	8×12	163	10×17	170
56		5×11	90	5×11	100	5×11	105	5×11	109	6.3×11	127	6.3×11	151	8×12	172	10×16	187
68		5×11	102	5×11	119	5×11	145	5×11	151	6.3×11	169	6.3×11	196	8×12	206	10×17	238
100		5×11	111	5×11	139	6.3×11	151	6.3×11	163	8×12	194	8×14	242	10×13	254	10×20	315

Cap (µF)	WV (V) (Code)	6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)		63 (1J)		100 (2A)	
	Item	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.
220		5×11	175	6.3×11	212	8×12	237	8×12	369	10×13	332	10×17	363	10×20	436	13×25	581
330		6.3×11	233	6.3×11	272	8×12	321	10×13	436	10×16	484	10×20	514	13×21	666	16×26	714
470		6.3×11	266	8×12	299	8×14	381	8×16	460	10×20	581	13×21	762	13×25	847	16×32	968
								10×16	448								
560		8×12	272	8×12	306	8×14	387	10×16	581	10×20	629	13×21	774	13×25	871	16×36	1012
680		8×12	278	8×12	319	8×16	424	10×20	581	13×21	702	13×25	799	16×26	1004	18×32	1210
1000		8×14	484	10×13	586	10×16	617	10×20	750	13×21	908	13×25	1089	16×32	1210	18×35	1573
1500		8×20	545	10×20	592	10×20	641	13×21	787	13×25	1041	16×32	1452	18×32	1718	-	-
2200		10×16	774	10×20	918	13×21	1004	13×25	1132	16×26	1343	16×32	1463	18×35	1997	-	-
												16×36	1609				
3300		10×20	908	13×21	1091	13×25	1222	13×25	1380	16×36	1730	18×35	1997	22×40	2347	-	-
4700		13×21	1162	13×25	1306	16×26	1464	16×32	1718	16×32	1950	22×40	2541	22×50	2965	-	-
6800		13×25	1385	16×26	1770	16×36	1863	18×35	2202	22×40	2602	22×50	3025	-	-	-	-
10000		16×26	1730	16×36	2236	18×35	2335	22×40	2589	22×50	3207	-	-	-	-	-	-
15000		16×36	2214	18×35	2808	22×40	2928	22×50	3328	-	-	-	-	-	-	-	-
22000		18×40	2771	22×40	3514	22×50	3630	-	-	-	-	-	-	-	-	-	-

Cap (µF)	WV (V) (Code)	160 (2C)		200 (2D)		250 (2E)		350 (2V)		400 (2G)		450 (2W)		500 (2H)	
	Item	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.
2.2		6.3×11	26	6.3×11	28	8×12	34	8×12	30	8×12	32	8×12	39	-	-
3.3		8×12	36	8×12	42	8×12	48	10×13	39	10×13	46	10×16	51	10×20	35
4.7		8×12	48	8×12	51	10×13	61	10×13	46	10×13	57	10×20	65	10×20	48
6.8		8×12	51	8×12	61	10×13	70	10×13	76	10×16	83	13×21	87	13×21	65
10		10×13	61	10×16	73	10×16	85	10×20	97	10×20	97	10×17	95	13×21	80
22		10×16	121	10×20	163	13×21	157	13×25	151	13×21	175	16×22	152	16×26	105
33		10×20	145	13×21	175	13×21	182	13×25	176	16×26	211	16×26	211	16×32	145
47		13×21	194	13×25	242	13×25	248	16×26	254	13×30	278	16×32	339	18×35	165
68		13×21	224	13×25	253	16×26	272	16×32	260	16×32	317	18×32	508	18×45	180
82		13×25	266	13×25	278	16×26	300	16×32	284	18×26	424	18×35	569	-	-
100		16×26	363	16×26	320	16×32	393	18×32	328	18×32	484	18×40	605	-	-
120		16×26	363	16×26	363	16×32	460	18×35	347	18×35	545	18×40	666	-	-
150		16×26	399	16×32	444	18×32	545	18×40	387	18×40	605	22×45	750	-	-
220		16×36	520	18×32	641	22×35	847	-	-	-	-	-	-	-	-
330		18×35	726	22×35	750	-	-	-	-	-	-	-	-	-	-
470		18×40	877	22×40	925	-	-	-	-	-	-	-	-	-	-

Explanation of parts numbers