

NEW!

MKCA Series (Resin-encased Metallized Polypropylene film capacitors)

Features

- Suitable for DC link circuit
- Wide range of rated voltages (450 ~ 1,200V.DC)

Specifications

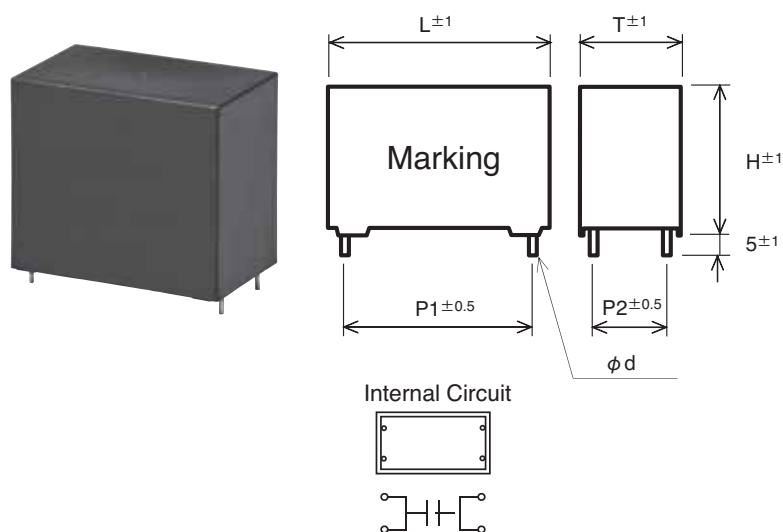
Items	Description
Operating Temperature range *	-40 ~ +105°C (85°C ~ 105°C : decreasing factor 1.4% per °C for U_N)
Rated Voltage U_N	450 ~ 1,200V.DC at 85°C
Voltage test between terminals	$1.5 \times U_N / 10s$
Terminals	Tinned wire leads
Reference standard	IEC 61071 : 2017, UL810
Dielectric	Polypropylene
Case	UL94V-0
Filling material	UL94V-0
Environmental regulation	Comply with RoHS

* Temperature in table is value at hot spot on capacitor case.

Dimension

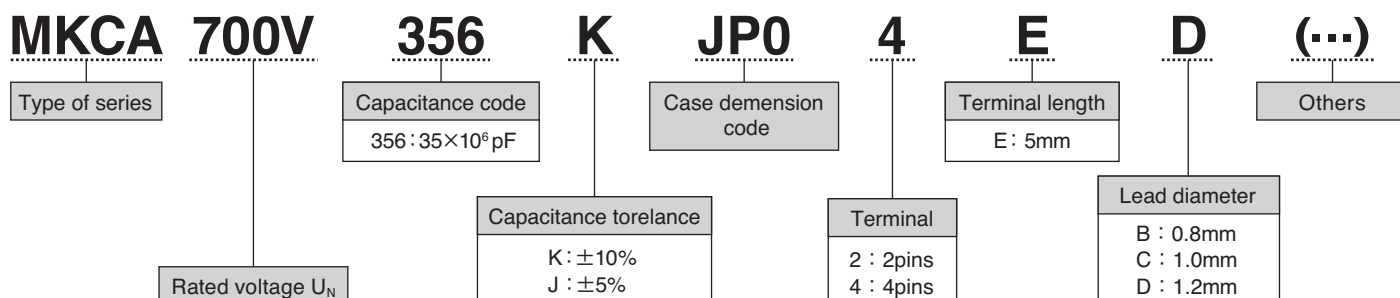
Case (mm)			Case dimension code
T	H	L	
9	18	32	G10
11	20	32	G30
13	22	32	G50
14	28	32	G60
15	24.5	32	G70
18	28	32	GA0
18	33	32	GA1
22	37	32	GE0
19	32	42.5	JB0
20	40	42.5	JC0
22	33.5	42.5	JE0
22	37	42.5	JE1
24	18	42.5	JG0
24	44	42.5	JG1
28	37	42.5	JL0
30	45	42.5	JN0
35	50	42.5	JP0
25	45	57.5	MH0
30	45	57.5	MN0
35	45	57.5	MP0
35	50	57.5	MP1
35	55	57.5	MP2
35	60	57.5	MP3
35	65	57.5	MP4
35	70	57.5	MP5
35	75	57.5	MP6
35	80	57.5	MP7
45	55	57.5	MR0
45	60	57.5	MR1
45	65	57.5	MR2

Outline of drawings and dimensions



Part number

Example : MKCA series 700V.dc 35 μ F $\pm 10\%$



Standard Products Table

Nominal Capacitance C_N [μ F]	Dimensions [mm]						dv/dt [V/ μ s]	Maximum peak current \hat{i} [A_P]	Maximum ripple current I_{max} [Arms] (at 70°C, 10kHz)	ESR (typ.) [$m\Omega$]	R_{th} [K/W]	Part number
	T	H	L	P1	P2	ϕd						
Rated voltage U_N : 450Vdc									Voltage test between terminals U_{TT} : 675Vdc/10s			
3	11	20	32	27.5	—	0.8	50	150	4.0	28.0	41.3	MKCA450V305KG302EB
5	13	22	32	27.5	—	0.8	50	250	6.0	14.0	35.6	MKCA450V505KG502EB
10	18	33	32	27.5	—	0.8	50	500	10.0	8.0	22.5	MKCA450V106KGA12EB
15	22	37	32	27.5	—	0.8	50	750	12.0	6.5	18.5	MKCA450V156KGE02EB
15	22	37	32	27.5	10.2	0.8	50	750	13.0	5.5	18.5	MKCA450V156KGE04EB
20	20	40	42.5	37.5	10.2	1	30	600	12.5	6.5	16.6	MKCA450V206KJC04EC
22	20	40	42.5	37.5	10.2	1	30	660	13.5	6.5	16.6	MKCA450V226KJG04EC
30	24	44	42.5	37.5	10.2	1	30	900	15.0	6.0	14.1	MKCA450V306KJG14EC
35	30	45	42.5	37.5	20.3	1.2	30	1,050	16.5	5.8	12.2	MKCA450V356KJN04ED
40	30	45	42.5	37.5	20.3	1.2	30	1,200	17.0	5.5	12.2	MKCA450V406KJN04ED
50	35	50	42.5	37.5	20.3	1.2	30	1,500	19.5	5.0	10.4	MKCA450V506KJP04ED
60	30	45	57.5	52.5	20.3	1.2	15	900	17.0	6.8	9.8	MKCA450V606KMN04ED
75	35	50	57.5	52.5	20.3	1.2	15	1,125	20.0	5.0	8.4	MKCA450V756KMP14ED
Rated voltage U_N : 600Vdc									Voltage test between terminals U_{TT} : 900Vdc/10s			
3	11	20	32	27.5	—	0.8	50	150	3.5	31.8	41.3	MKCA600V305KG302EB
4	11	20	32	27.5	—	0.8	50	200	4.5	23.9	41.3	MKCA600V405KG302EB
5	14	28	32	27.5	—	0.8	50	250	6.0	14.5	28.8	MKCA600V505KG602EB
10	18	33	32	27.5	—	0.8	50	500	8.5	9.7	22.5	MKCA600V106KGA12EB
15	22	37	32	27.5	—	0.8	50	750	10.5	9.0	18.5	MKCA600V156KGE02EB
20	20	40	42.5	37.5	10.2	1	30	600	11.0	9.8	16.6	MKCA600V206KJC04EC
30	28	37	42.5	37.5	10.2	1	30	900	13.0	5.5	14.6	MKCA600V306KJL04EC
40	30	45	42.5	37.5	20.3	1.2	30	1,200	17.5	5.2	12.2	MKCA600V406KJN04ED
50	35	50	57.5	52.5	20.3	1.2	15	750	14.0	6.5	8.4	MKCA600V506KMP14ED
60	35	50	57.5	52.5	20.3	1.2	15	900	16.0	6.0	8.4	MKCA600V606KMP14ED
70	35	50	57.5	52.5	20.3	1.2	15	1,050	20.5	5.6	8.4	MKCA600V706KMP14ED
Rated voltage U_N : 700Vdc									Voltage test between terminals U_{TT} : 1,050Vdc/10s			
1	9	18	32	27.5	—	0.8	50	50	2.5	54.0	48.7	MKCA700V105KG102EB
3.3	14	28	32	27.5	—	0.8	50	165	5.0	26.0	28.8	MKCA700V335KG602EB
5	14	28	32	27.5	—	0.8	50	250	5.5	16.0	28.8	MKCA700V505KG602EB
6	18	28	32	27.5	—	0.8	50	300	6.0	14.0	25.3	MKCA700V605KGA02EB
8	18	33	32	27.5	—	0.8	50	400	9.0	10.0	22.5	MKCA700V805KGA12EB
10	22	37	32	27.5	—	0.8	50	500	12.0	6.5	18.5	MKCA700V106KGE02EB
12	22	37	32	27.5	—	0.8	50	600	12.5	6.0	18.5	MKCA700V126KGE02EB
15	22	33.5	42.5	37.5	—	1	30	450	9.0	9.0	17.9	MKCA700V156KJE02EC
15	22	33.5	42.5	37.5	10.2	1	30	450	10.0	8.0	17.9	MKCA700V156KJE04EC
15	20	40	42.5	37.5	10.2	1	30	450	10.0	8.0	16.6	MKCA700V156KJC04EC
20	28	37	42.5	37.5	10.2	1	30	600	12.0	7.5	14.6	MKCA700V206KJL04EC
22	24	44	42.5	37.5	10.2	1	30	660	14.0	6.5	14.1	MKCA700V226KJG14EC
25	24	44	42.5	37.5	10.2	1	30	750	15.0	6.0	14.1	MKCA700V256KJG14EC
30	30	45	42.5	37.5	20.3	1.2	30	900	16.0	5.8	12.2	MKCA700V306KJN04ED
35	35	50	42.5	37.5	20.3	1.2	30	1,050	18.5	5.5	10.4	MKCA700V356KJP04ED
40	30	45	57.5	52.5	20.3	1.2	15	600	14.0	6.2	9.8	MKCA700V406KMN04ED
45	30	45	57.5	52.5	20.3	1.2	15	675	15.5	5.1	9.8	MKCA700V456KMN04ED
50	35	50	57.5	52.5	20.3	1.2	15	750	15.0	4.8	8.4	MKCA700V506KMP14ED
55	35	50	57.5	52.5	20.3	1.2	15	825	16.0	4.5	8.4	MKCA700V556KMP14ED
60	35	50	57.5	52.5	20.3	1.2	15	900	18.0	4.2	8.4	MKCA700V606KMP14ED
80	35	60	57.5	52.5	20.3	1.2	15	1,200	23.0	3.5	7.3	MKCA700V806KMP34ED
Rated voltage U_N : 800Vdc									Voltage test between terminals U_{TT} : 1,200Vdc/10s			
1	9	18	32	27.5	—	0.8	50	50	2.0	62.0	48.7	MKCA800V105KG102EB
2	11	20	32	27.5	—	0.8	50	100	3.5	31.0	41.3	MKCA800V205KG302EB
3	13	22	32	27.5	—	0.8	50	150	4.0	25.0	35.6	MKCA800V305KG502EB
3.3	14	28	32	27.5	—	0.8	50	165	4.5	21.0	28.8	MKCA800V335KG602EB
5	14	28	32	27.5	—	0.8	50	250	7.0	14.0	28.8	MKCA800V505KG602EB
6	18	28	32	27.5	—	0.8	50	300	7.5	13.5	25.3	MKCA800V605KGA02EB
8	18	33	32	27.5	—	0.8	50	400	8.0	12.5	22.5	MKCA800V805KGA12EB
9	18	33	32	27.5	—	0.8	50	450	8.5	11.1	22.5	MKCA800V905KGA12EB
10	22	37	32	27.5	—	0.8	50	500	9.5	11.0	18.5	MKCA800V106KGE02EB
10	19	32	42.5	37.5	—	1	30	300	8.0	12.5	20	MKCA800V106KJB02EC
15	20	40	42.5	37.5	10.2	1	30	450	10.0	11.9	16.6	MKCA800V156KJC04EC
20	28	37	42.5	37.5	10.2	1	30	600	12.0	8.9	14.6	MKCA800V206KJL04EC
20	24	44	42.5	37.5	10.2	1	30	600	12.5	8.9	14.1	MKCA800V206KJG14EC
22	24	44	42.5	37.5	10.2	1	30	660	14.0	6.0	14.1	MKCA800V226KJG14EC
25	30	45	42.5	37.5	20.3	1.2	30	750	15.0	6.0	12.2	MKCA800V256KJN04ED
30	30	45	42.5	37.5	20.3	1.2	30	900	16.5	5.9	12.2	MKCA800V306KJN04ED
35	30	45	57.5	52.5	20.3	1.2	15	525	12.0	9.5	9.8	MKCA800V356KMN04ED
40	30	45	57.5	52.5	20.3	1.2	15	600	13.5	8.9	9.8	MKCA800V406KMN04ED
45	30	45	57.5	52.5	20.3	1.2	15	675	15.0	7.9	9.8	MKCA800V456KMN04ED
50	35	50	57.5	52.5	20.3	1.2	15	750	16.5	7.1	8.4	MKCA800V506KMP14ED
55	35	50	57.5	52.5	20.3	1.2	15	825	18.5	6.5	8.4	MKCA800V556KMP14ED
65	35	60	57.5	52.5	20.3	1.2	15	975	19.0	5.5	7.3	MKCA800V656KMP34ED
70	35	60	57.5	52.5	20.3	1.2	15	1,050	20.0	5.1	7.3	MKCA800V706KMP34ED
75	35	65	57.5	52.5	20.3	1.2	15	1,125	22.0	4.8	6.9	MKCA800V756KMP44ED

POWER ELECTRONICS USE PLASTIC FILM CAPACITORS

Standard Products Table

Nominal Capacitance C_N (μF)	Dimensions (mm)						dv/dt (V/us)	Maximum peak current \hat{i} (A_P)	Maximum ripple current I_{max} (Arms) (at 70°C, 10kHz)	ESR (typ.) (mΩ)	R_{th} (K/W)	Part number
	T	H	L	P1	P2	ϕd						
Rated voltage U_N : 900Vdc								Voltage test between terminals U_{TT} : 1,350Vdc/10s				
1	9	18	32	27.5	—	0.8	50	50	1.5	86.0	48.7	MKCA900V105KG102EB
2	11	20	32	27.5	—	0.8	50	100	3.0	43.0	41.3	MKCA900V205KG302EB
3	13	22	32	27.5	—	0.8	50	150	4.0	28.7	35.6	MKCA900V305KG502EB
3.3	15	24.5	32	27.5	—	0.8	50	165	4.5	26.5	30.6	MKCA900V335KG702EB
5	18	28	32	27.5	—	0.8	50	250	5.5	22.5	25.3	MKCA900V505KGA02EB
6	18	33	32	27.5	—	0.8	50	300	6.5	18.0	22.5	MKCA900V605KGA12EB
8	22	37	32	27.5	—	0.8	50	400	8.5	13.5	18.5	MKCA900V805KGE02EB
10	22	37	32	27.5	—	0.8	50	500	9.0	12.0	18.5	MKCA900V106KGE02EB
10	20	40	42.5	37.5	—	1	30	300	7.0	16.7	16.6	MKCA900V106KJC02EC
10	20	40	42.5	37.5	10.2	1	30	300	7.0	16.7	16.6	MKCA900V106KJC04EC
15	24	44	42.5	37.5	—	1	30	450	10.5	11.1	14.1	MKCA900V156KJG12EC
18	24	44	42.5	37.5	—	1	30	540	12.0	9.3	14.1	MKCA900V186KJG12EC
18	24	44	42.5	37.5	10.2	1	30	540	12.0	9.3	14.1	MKCA900V186KJG14EC
20	30	45	42.5	37.5	—	1	30	600	13.5	8.5	12.2	MKCA900V206KJN02EC
20	30	45	42.5	37.5	20.3	1.2	30	600	13.5	8.5	12.2	MKCA900V206KJN04ED
25	30	45	42.5	37.5	20.3	1.2	30	750	15.5	6.7	12.2	MKCA900V256KJN04ED
30	35	50	42.5	37.5	20.3	1.2	30	900	18.5	5.6	10.4	MKCA900V306KJP04ED
30	30	45	57.5	52.5	20.3	1.2	15	450	10.5	11.1	9.8	MKCA900V306KMN04ED
35	35	50	57.5	52.5	20.3	1.2	15	525	13.5	9.5	8.4	MKCA900V356KMP14ED
40	35	50	57.5	52.5	20.3	1.2	15	600	14.0	8.4	8.4	MKCA900V406KMP14ED
50	35	50	57.5	52.5	20.3	1.2	15	750	17.5	6.7	8.4	MKCA900V506KMP14ED
55	35	60	57.5	52.5	20.3	1.2	15	825	19.0	6.1	7.3	MKCA900V556KMP34ED
60	35	65	57.5	52.5	20.3	1.2	15	900	22.0	5.6	6.9	MKCA900V606KMP44ED
Rated voltage U_N : 1,000Vdc								Voltage test between terminals U_{TT} : 1,500Vdc/10s				
1	11	20	32	27.5	—	0.8	70	70	2.5	45.0	41.3	MKCA1000V105KG302EB
2	13	22	32	27.5	—	0.8	70	140	3.5	38.2	35.6	MKCA1000V205KG502EB
3	15	24.5	32	27.5	—	0.8	70	210	5.0	25.5	30.6	MKCA1000V305KG702EB
5	18	33	32	27.5	—	0.8	70	350	7.5	15.3	22.5	MKCA1000V505KGA12EB
8	22	37	32	27.5	—	0.8	70	560	9.0	13.0	18.5	MKCA1000V805KGE02EB
10	20	40	42.5	37.5	—	1	35	350	6.5	15.6	16.6	MKCA1000V106KJC02EC
10	20	40	42.5	37.5	10.2	1	35	350	6.5	15.6	16.6	MKCA1000V106KJC04EC
12	24	44	42.5	37.5	10.2	1	35	420	10.0	13.0	14.1	MKCA1000V126KJG14EC
15	24	44	42.5	37.5	—	1	35	525	11.5	10.4	14.1	MKCA1000V156KJG12EC
15	24	44	42.5	37.5	10.2	1	35	525	11.5	10.4	14.1	MKCA1000V156KJG14EC
15	30	45	42.5	37.5	20.3	1.2	35	525	12.5	10.4	12.2	MKCA1000V156KJN04ED
20	30	45	42.5	37.5	20.3	1.2	35	700	14.0	7.8	12.2	MKCA1000V206KJN04ED
25	35	50	42.5	37.5	20.3	1.2	35	875	17.5	6.2	10.4	MKCA1000V256KJP04ED
30	30	45	57.5	52.5	20.3	1.2	17	510	11.5	10.4	9.8	MKCA1000V306KMN04ED
35	35	50	57.5	52.5	20.3	1.2	17	595	13.5	8.9	8.4	MKCA1000V356KMP14ED
40	35	50	57.5	52.5	20.3	1.2	17	680	15.0	7.8	8.4	MKCA1000V406KMP14ED
40	35	60	57.5	52.5	20.3	1.2	17	680	17.0	7.8	7.3	MKCA1000V406KMP34ED
50	35	65	57.5	52.5	20.3	1.2	17	850	19.0	6.2	6.9	MKCA1000V506KMP44ED
Rated voltage U_N : 1,100Vdc								Voltage test between terminals U_{TT} : 1,650Vdc/10s				
1	11	20	32	27.5	—	0.8	70	70	1.5	80.0	41.3	MKCA1100V105KG302EB
2	15	24.5	32	27.5	—	0.8	70	140	4.0	25.0	30.6	MKCA1100V205KG702EB
2.2	14	28	32	27.5	—	0.8	70	154	5.0	18.5	28.8	MKCA1100V225KG602EB
4	18	33	32	27.5	—	0.8	70	280	7.5	15.3	22.5	MKCA1100V405KGA12EB
5	22	37	32	27.5	—	0.8	70	350	8.5	14.0	18.5	MKCA1100V505KGE02EB
6.8	22	33.5	42.5	37.5	10.2	1	40	272	6.0	20.5	17.9	MKCA1100V685KJE04EC
8	20	40	42.5	37.5	—	1	40	320	7.5	18.1	16.6	MKCA1100V805KJC02EC
8	20	40	42.5	37.5	10.2	1	40	320	7.5	18.1	16.6	MKCA1100V805KJC04EC
8	22	37	42.5	37.5	10.2	1	40	320	6.5	18.1	16.7	MKCA1100V805KJE14EC
9	22	37	42.5	37.5	10.2	1	40	360	7.5	16.1	16.7	MKCA1100V905KJE14EC
10	24	44	42.5	37.5	—	1	40	400	8.0	14.5	14.1	MKCA1100V106KJG12EC
10	24	44	42.5	37.5	10.2	1	40	400	8.0	14.5	14.1	MKCA1100V106KJG14EC
12	30	45	42.5	37.5	20.3	1.2	40	480	11.5	12.1	12.2	MKCA1100V126KJN04ED
15	30	45	42.5	37.5	20.3	1.2	40	600	12.0	9.7	12.2	MKCA1100V156KJN04ED
18	35	50	42.5	37.5	20.3	1.2	40	720	14.5	8.1	10.4	MKCA1100V186KJP04ED
20	30	45	57.5	52.5	20.3	1.2	20	400	8.0	14.5	9.8	MKCA1100V206KMN04ED
25	35	50	57.5	52.5	20.3	1.2	20	500	10.0	11.6	8.4	MKCA1100V256KMP14ED
30	35	50	57.5	52.5	20.3	1.2	20	600	12.0	9.7	8.4	MKCA1100V306KMP14ED
35	35	60	57.5	52.5	20.3	1.2	20	700	16.0	5.5	7.3	MKCA1100V356KMP34ED
40	35	65	57.5	52.5	20.3	1.2	20	800	17.0	4.9	6.9	MKCA1100V406KMP44ED

PLASTIC FILM CAPACITORS

Standard Products Table

Nominal Capacitance C_N [μF]	Dimensions [mm]						dv/dt [V/ μs]	Maximum peak current \hat{i} [A _P]	Maximum ripple current I_{max} [Arms] (at 70°C, 10kHz)	ESR (typ.) [m Ω]	R_{th} [K/W]	Part number
	T	H	L	$P1$	$P2$	ϕd						
Rated voltage U_N : 1,200Vdc								Voltage test between terminals U_{TT} : 1,800Vdc/10s				
1	11	20	32	27.5	—	0.8	80	80	3.5	39.5	41.3	MKCA1200V105KG302EB
2.2	18	28	32	27.5	—	0.8	80	176	5.5	17.0	25.3	MKCA1200V225KGA02EB
3	18	28	32	27.5	—	0.8	80	240	7.0	16.0	25.3	MKCA1200V305KGA02EB
3.3	18	33	32	27.5	—	0.8	80	264	8.0	13.5	22.5	MKCA1200V335KGA12EB
5	22	37	32	27.5	—	0.8	80	400	9.0	12.7	18.5	MKCA1200V505KGE02EB
5	22	33.5	42.5	37.5	—	1	45	225	6.0	22.3	17.9	MKCA1200V505KJE02EC
6	20	40	42.5	37.5	—	1	45	270	6.5	18.6	16.6	MKCA1200V605KJC02EC
7	22	37	42.5	37.5	10.2	1	45	315	7.5	15.9	16.7	MKCA1200V705KJE14EC
8	24	44	42.5	37.5	10.2	1	45	360	8.5	13.9	14.1	MKCA1200V805KJG14EC
10	24	44	42.5	37.5	10.2	1	45	450	10.5	11.1	14.1	MKCA1200V106KJG14EC
10	30	45	42.5	37.5	20.3	1.2	45	450	12.0	11.1	12.2	MKCA1200V106KJN04ED
15	35	50	42.5	37.5	20.3	1.2	45	675	16.0	7.4	10.4	MKCA1200V156KJP04ED
20	30	45	57.5	52.5	20.3	1.2	23	460	10.0	11.9	9.8	MKCA1200V206KMN04ED
25	35	50	57.5	52.5	20.3	1.2	23	575	12.5	9.6	8.4	MKCA1200V256KMP14ED
30	35	60	57.5	52.5	20.3	1.2	23	690	16.0	8.0	7.3	MKCA1200V306KMP34ED