

KA Type Screw Terminal -40°C +85°C 12000H

Surge-proof capacitor in aluminium can with insulation sleeve

Heavy duty screw terminal connectors.

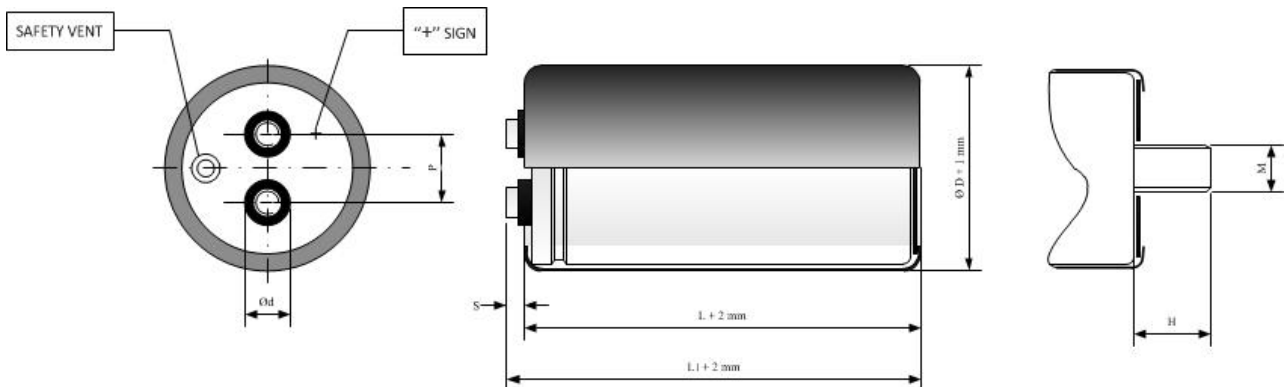
Mounted with ring clip or threaded stud

Very high CV for unit volume with low ESR

High ripple current capability.

APPLICATIONS

Professional power electronics. Switch mode power supplies, convertors, filtering devices.



ØD	Ød	P	M	H	Screw
35	11	12.7	M 8	12	5MA x 9.5
51	18.5	22.7	M 12	16	5MA x 9.5
63	18.5	28.6	M 12	16	5MA x 9.5
76	18.5	31.8	M 12	16	5MA x 9.5
76	18.5	31.8	M 12	16	6MA x 10
90	18.5	31.8	M 12	16	6MA x 10

M5	S = 5mm -0 +1mm from top of deck	L1 = L + 2.5mm	L1 tol = -0 +3mm
M6	S = 7mm -1 +1mm from top of deck	L1 = L + 4.5mm	L1 tol = -1 +3mm

KA TYPE SPECIFICATIONS

Temperature Range	Operating: -40°C +85°C [Environmental classification 40/85/56 IEC-68] Storage : Preferably below +25°C, not exceeding +40 °C																																									
Rated Voltage Range (V_r)	from 16V to 500V DC																																									
Surge Voltage (V_p)	V _p = 1.05 V _r (V _r > 450 V DC) V _p = 1.15 V _r (V _r ≤ 250 V DC) V _p = 1.10 V _r (V _r > 250 V DC)																																									
Rated Capacitance Range	from 220 µF to 1,500,000 µF																																									
Capacitance Tolerance	±20% at 100 Hz, 20°C [M class IEC-62] on request: -10% +30% at 100 Hz, 20°C [Q class IEC-62]																																									
Leakage Current (I_L) (mA, 5 min, 20°C)	max I _L = 0.006 C _r V _r + 4 µA At 85°C max I _L = 0.04 C _r V _r µA Product limit: I _L = 0.006 C _r V _r																																									
Ripple current (I_r)	<p>Refer to table at 85°C and 100Hz. For different temperature and frequency, multiplier must be used as follows :</p> <table border="1"> <tr> <td>FREQUENCY</td> <td>50Hz</td> <td>100Hz</td> <td>500 Hz</td> <td>1000Hz</td> <td>>10kHz</td> </tr> <tr> <td>MULTIPLIER</td> <td>0.8</td> <td>1.0</td> <td>1.2</td> <td>1.3</td> <td>1.5</td> </tr> </table> <table border="1"> <tr> <td>AMBIENT TEMP</td> <td>35°C</td> <td>45°C</td> <td>55°C</td> <td>65°C</td> <td>75°C</td> <td>85°C</td> <td>95°C</td> </tr> <tr> <td>MULTIPLIER</td> <td>2.2</td> <td>2.1</td> <td>1.8</td> <td>1.6</td> <td>1.4</td> <td>1.0</td> <td>0.5</td> </tr> </table> <p>Maximum internal temperature 98°C</p> <p>Due to the current load capability of the contact elements, the following limits must not be exceeded:</p> <table border="1"> <tr> <td>CAPACITOR DIAMETER</td> <td>35mm</td> <td>51mm</td> <td>63mm</td> <td>76mm</td> <td>90mm</td> </tr> <tr> <td>Maximum current</td> <td>20A</td> <td>30A</td> <td>40A</td> <td>50A</td> <td>70A</td> </tr> </table>		FREQUENCY	50Hz	100Hz	500 Hz	1000Hz	>10kHz	MULTIPLIER	0.8	1.0	1.2	1.3	1.5	AMBIENT TEMP	35°C	45°C	55°C	65°C	75°C	85°C	95°C	MULTIPLIER	2.2	2.1	1.8	1.6	1.4	1.0	0.5	CAPACITOR DIAMETER	35mm	51mm	63mm	76mm	90mm	Maximum current	20A	30A	40A	50A	70A
FREQUENCY	50Hz	100Hz	500 Hz	1000Hz	>10kHz																																					
MULTIPLIER	0.8	1.0	1.2	1.3	1.5																																					
AMBIENT TEMP	35°C	45°C	55°C	65°C	75°C	85°C	95°C																																			
MULTIPLIER	2.2	2.1	1.8	1.6	1.4	1.0	0.5																																			
CAPACITOR DIAMETER	35mm	51mm	63mm	76mm	90mm																																					
Maximum current	20A	30A	40A	50A	70A																																					
Insulation Resistance	At 100V DC for 1 min is >100 MΩ across insulating sleeve and terminals.																																									
Vibration Resistance	Frequency range: 10 Hz to 55 Hz, amplitude 0.75 mm Capacitor length ≤ 143 : max acceleration 10g for 3x2 h Capacitor length > 143 : max acceleration 5g for 3x0.5 h																																									
Life test	After 2,000 hours application of rated voltage at 85°C capacitors meet characteristics	<table border="1"> <tr> <td>Cap change</td> <td>≤ 20%</td> </tr> <tr> <td>tan δ</td> <td>≤ 200%</td> </tr> <tr> <td>Leakage current (I_L)</td> <td>< initial limit</td> </tr> <tr> <td>Impedance (Z)</td> <td>≤ 200%</td> </tr> </table>	Cap change	≤ 20%	tan δ	≤ 200%	Leakage current (I _L)	< initial limit	Impedance (Z)	≤ 200%																																
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Shelf life	After leaving capacitors under no load for 500 hours at 85°C, when restored to 20°C meet specifications	<table border="1"> <tr> <td>Cap change</td> <td>≤ ±15%</td> </tr> <tr> <td>tan δ</td> <td>≤ 150%</td> </tr> <tr> <td>Leakage current (I_L)</td> <td>< initial limit</td> </tr> </table>	Cap change	≤ ±15%	tan δ	≤ 150%	Leakage current (I _L)	< initial limit																																		
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Leakage current (I _L)	< initial limit																																									
Useful life	200.000 h at 40°C 12.000 h at 85°C																																									
Failure percentage Failure rate	≤ 1% (during useful life) ≤ 40 fit (40 10 ⁻⁹ /h) (V _r ≤ 160 V DC) ≤ 70 fit (70 10 ⁻⁹ /h) (V _r > 160 V DC)																																									
Self inductance	Approx. 20 nH																																									
Reference standards	CECC 30.300 IEC 60384-4 LONG LIFE GRADE																																									

KA TYPE SPECIFICATIONS

	Capacitance μF	$\varnothing \times \text{L}$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER
							standard insert style no stud
RATED VOLTAGE VDC 16V	22,000	35x60	0.35	18	16	6.6	KA223MA35060AA1
	33,000	35x60	0.40	15	13	9.2	KA333MA35060AA1
	33,000	35x79	0.40	15	13	10.2	KA333MA35079AA1
	47,000	35x79	0.55	13	12	10.8	KA473MA35079AA1
	47,000	51x79	0.55	13	12	12.5	KA473MA51079AA1
	68,000	51x79	0.60	12	11	15.7	KA683MA51079AA1
	100,000	51x105	0.80	10	10	18.7	KA104MA51105AA1
	100,000	51x79	0.80	10	11	16.5	KA104MA51079AA1
	150,000	51x105	1.10	10	9	19.5	KA154MA51105AA1
	150,000	63x105	1.10	10	9	21.5	KA154MA63105AA1
	220,000	63x105	1.50	8	8	22.4	KA224MA63105AA1
	330,000	63x105	1.90	8	8	23.3	KA334MA63105AA1
	330,000	76x105	1.90	8	8	25.0	KA334MA76105AA1
	470,000	76x105	1.90	5	5	28.5	KA474MA76105AA1
	470,000	76x143	1.90	5	5	32.0	KA474MA76143AA1
	680,000	76x143	2.50	4	4	32.5	KA684MA76143AA1
	1,000,000	76x143	2.50	3	3	34.5	KA105MA76143AA1
	1,500,000	90x220	3.00	3	3	48.7	KA155MA90220AB1

	Capacitance μF	$\varnothing \times \text{L}$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER
							standard insert style no stud
RATED VOLTAGE VDC 25V	10,000	35x60	0.25	27	21	5.9	KA103MB35060AA1
	15,000	35x60	0.28	16	12	9.3	KA153MB35060AA1
	22,000	35x79	0.35	18	16	11.8	KA223MB35079AA1
	33,000	35x79	0.40	15	14	12.1	KA333MB35079AA1
	33,000	51x79	0.40	15	14	13.3	KA333MB51079AA1
	47,000	51x79	0.50	12	10	15.7	KA473MB51079AA1
	68,000	51x105	0.60	10	9	18.7	KA683MB51105AA1
	68,000	51x79	0.60	10	9	16.4	KA683MB51079AA1
	100,000	51x105	0.70	10	9	19.5	KA104MB51105AA1
	100,000	63x105	0.70	10	9	21.5	KA104MB63105AA1
	150,000	63x105	1.00	9	9	22.0	KA154MB63105AA1
	150,000	76x105	1.00	9	9	23.5	KA154MB76105AA1
	220,000	76x105	1.50	9	9	24.2	KA224MB76105AA1
	220,000	76x143	1.50	9	9	28.5	KA224MB76143AA1
	330,000	76x143	2.00	9	9	30.5	KA334MB76143AA1
	470,000	76x214	2.00	5	5	35.6	KA474MB76214AA1

KA TYPE SPECIFICATIONS

	Capacitance μF	$\varnothing \times L$ mm	Tan δ	ESR	Z	Ir a.c.	PART NUMBER standard insert style no stud
			MAX 100 Hz 20°C	TYP m Ω 100 Hz 20°C	TYP m Ω 10 kHz 20°C	A max 100 Hz 105°C	
RATED VOLTAGE VDC 40V	10,000	35x60	0.20	18	12	6.5	KA103MC35060AA1
	15,000	35x60	0.25	13	10	7.4	KA153MC35060AA1
	15,000	35x79	0.25	13	10	8.6	KA153MC35079AA1
	22,000	35x79	0.30	16	14	8.9	KA223MC35079AA1
	22,000	51x79	0.30	16	14	10.4	KA223MC51079AA1
	33,000	51x79	0.35	15	13	13.5	KA333MC51079AA1
	47,000	51x105	0.40	10	9	15.1	KA473MC51105AA1
	47,000	51x79	0.40	10	9	14.2	KA473MC51079AA1
	47,000	63x105	0.40	10	9	17.6	KA473MC63105AA1
	68,000	51x105	0.50	10	8	18.2	KA683MC51105AA1
	68,000	63x105	0.50	10	8	19.5	KA683MC63105AA1
	100,000	63x105	0.60	9	8	21.2	KA104MC63105AA1
	100,000	76x75	0.70	8	8	21.0	KA104MC76075AA1
	150,000	76x105	0.90	9	8	25.7	KA154MC76105AA1
	220,000	76x143	1.00	6	6	31.5	KA224MC76143AA1
	330,000	76x214	1.20	5	5	38.5	KA334MC76214AA1

	Capacitance μF	$\varnothing \times L$ mm	Tan δ	ESR	Z	Ir a.c.	PART NUMBER standard insert style no stud
			MAX 100 Hz 20°C	TYP m Ω 100 Hz 20°C	TYP m Ω 10 kHz 20°C	A max 100 Hz 105°C	
RATED VOLTAGE VDC 50V	4,700	35x60	0.20	33	30	5.6	KA472MD35060AA1
	6,800	35x60	0.20	25	24	7.0	KA682MD35060AA1
	10,000	35x60	0.20	21	20	10.0	KA103MD35060AA1
	15,000	35x79	0.25	17	15	11.3	KA153MD35079AA1
	22,000	51x79	0.30	16	13	13.1	KA223MD51079AA1
	33,000	51x105	0.35	15	13	16.0	KA333MD51105AA1
	33,000	63x105	0.35	15	13	17.5	KA333MD63105AA1
	47,000	51x105	0.40	12	10	16.2	KA473MD51105AA1
	47,000	63x105	0.40	12	10	18.3	KA473MD63105AA1
	68,000	63x105	0.60	12	9	18.0	KA683MD63105AA1
	68,000	76x105	0.60	12	9	22.1	KA683MD76105AA1
	100,000	76x105	0.90	8	8	23.8	KA104MD76105AA1
	100,000	76x143	0.90	8	8	25.8	KA104MD76143AA1
	150,000	76x143	1.00	6	6	31.5	KA154MD76143AA1

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RATED VOLTAGE VDC	Capacitance μF	$\varnothing \times L$ mm	Tan δ	ESR	Z	Ir a.c.	PART NUMBER standard insert style no stud
			MAX 100 Hz 20°C	TYP m Ω 100 Hz 20°C	TYP m Ω 10 kHz 20°C	A max 100 Hz 105°C	
63V	4,700	35x60	0.15	29	25	6.2	KA472ME35060AA1
	6,800	35x60	0.18	21	20	7.0	KA682ME35060AA1
	6,800	35x79	0.18	21	20	8.2	KA682ME35079AA1
	10,000	35x79	0.20	21	20	8.7	KA103ME35079AA1
	10,000	51x79	0.20	18	16	10.1	KA103ME51079AA1
	15,000	51x79	0.25	15	13	11.1	KA153ME51079AA1
	22,000	51x105	0.30	13	11	14.6	KA223ME51105AA1
	22,000	51x79	0.30	13	11	12.4	KA223ME51079AA1
	33,000	51x105	0.35	11	10	15.6	KA333ME51105AA1
	33,000	63x105	0.35	11	10	17.9	KA333ME63105AA1
	47,000	51x105	0.45	10	9	15.8	KA473ME51105AA1
	47,000	63x105	0.45	11	10	18.8	KA473ME63105AA1
	68,000	76x105	0.70	11	10	25.7	KA683ME76105AA1
	100,000	76x105	0.70	8	8	31.5	KA104ME76105AA1
	100,000	76x143	0.70	8	8	34.5	KA104ME76143AA1
150,000	76x143	0.95	6	6	36.1	KA154ME76143AA1	

RATED VOLTAGE VDC	Capacitance μF	$\varnothing \times L$ mm	Tan δ	ESR	Z	Ir a.c.	PART NUMBER standard insert style no stud
			MAX 100 Hz 20°C	TYP m Ω 100 Hz 20°C	TYP m Ω 10 kHz 20°C	A max 100 Hz 105°C	
75V	4,700	35x60	0.15	29	25	5.4	KA472MF35060AA1
	6,800	35x79	0.18	20	20	8.5	KA682MF35079AA1
	10,000	51x79	0.20	18	16	11.0	KA103MF51079AA1
	15,000	51x105	0.25	15	13	12.7	KA153MF51105AA1
	22,000	51x105	0.30	12	11	15.2	KA223MF51105AA1
	22,000	63x105	0.30	12	11	15.2	KA223MF63105AA1
	33,000	63x105	0.35	11	10	18.5	KA333MF63105AA1
	33,000	76x105	0.35	11	10	18.5	KA333MF76105AA1
	47,000	76x105	0.45	10	10	22.1	KA473MF76105AA1
	47,000	76x143	0.45	10	10	22.1	KA473MF76143AA1
	68,000	76x143	0.80	10	10	26.0	KA683MF76143AA1
	100,000	76x143	0.95	8	8	34.9	KA104MF76143AA1

KA TYPE SPECIFICATIONS

RATED VOLTAGE VDC	Capacitance μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER standard insert style no stud
100V	1,500	35x60	0.15	84	65	4.0	KA152MG35060AA1
	2,200	35x60	0.15	57	47	5.0	KA222MG35060AA1
	3,300	35x60	0.15	48	39	5.3	KA332MG35060AA1
	3,300	35x79	0.15	48	39	6.8	KA332MG35079AA1
	4,700	35x79	0.15	30	26	7.5	KA472MG35079AA1
	4,700	51x79	0.15	30	26	10.0	KA472MG51079AA1
	6,800	51x79	0.20	23	20	11.1	KA682MG51079AA1
	10,000	51x105	0.20	16	14	13.9	KA103MG51105AA1
	10,000	51x79	0.20	16	14	11.9	KA103MG51079AA1
	10,000	63x105	0.20	16	14	14.5	KA103MG63105AA1
	15,000	51x105	0.25	13	12	14.8	KA153MG51105AA1
	15,000	63x105	0.25	13	12	17.5	KA153MG63105AA1
	22,000	63x105	0.25	12	12	18.2	KA223MG63105AA1
	33,000	76x105	0.25	10	10	23.1	KA333MG76105AA1
	47,000	76x143	0.30	10	9	30.2	KA473MG76143AA1
	68,000	76x143	0.30	7	7	32.6	KA683MG76143AA1
68,000	76x214	0.30	8	8	36.5	KA683MG76214AA1	

RATED VOLTAGE VDC	Capacitance μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER standard insert style no stud
160V	1,000	35x79	0.10	98	90	4.0	KA102MH35079AA1
	1,500	51x79	0.10	62	71	5.3	KA152MH51079AA1
	2,200	51x79	0.10	50	43	7.0	KA222MH51079AA1
	3,300	51x105	0.12	35	30	8.6	KA332MH51105AA1
	4,700	51x105	0.12	25	25	10.9	KA472MH51105AA1
	4,700	63x105	0.12	25	25	10.9	KA472MH63105AA1
	6,800	51x105	0.12	21	22	11.4	KA682MH51105AA1
	6,800	63x105	0.12	20	22	13.0	KA682MH63105AA1
	10,000	76x105	0.15	13	12	17.4	KA103MH76105AA1
	10,000	76x143	0.15	13	12	17.4	KA103MH76143AA1
	15,000	76x143	0.15	13	12	20.9	KA153MH76143AA1
	22,000	76x143	0.20	10	10	26.4	KA223MH76143AA1
	33,000	76x214	0.20	8	8	34.1	KA333MH76214AA1

KA TYPE SPECIFICATIONS

	Capacitance μF	$\varnothing \times L$ mm	Tan δ	ESR	Z	Ir a.c.	PART NUMBER standard insert style no stud
			MAX 100 Hz 20°C	TYP m Ω 100 Hz 20°C	TYP m Ω 10 kHz 20°C	A max 100 Hz 105°C	
RATED VOLTAGE VDC 200V	680	35x60	0.10	124	119	3.4	KA681MI35060AA1
	1,000	51x79	0.10	86	88	4.2	KA102MI51079AA1
	1,500	51x79	0.10	60	63	5.8	KA152MI51079AA1
	2,200	51x105	0.10	47	44	7.2	KA222MI51105AA1
	3,300	51x105	0.12	35	33	9.0	KA332MI51105AA1
	3,300	63x105	0.12	35	33	9.0	KA332MI63105AA1
	4,700	51x105	0.12	30	28	11.1	KA472MI51105AA1
	4,700	63x105	0.12	30	28	11.1	KA472MI63105AA1
	6,800	63x105	0.12	25	20	13.9	KA682MI63105AA1
	6,800	76x105	0.12	25	20	13.9	KA682MI76105AA1
	10,000	76x105	0.15	13	12	15.8	KA103MI76105AA1
	10,000	76x143	0.15	13	12	18.6	KA103MI76143AA1
	15,000	76x143	0.18	12	12	21.4	KA153MI76143AA1
	22,000	76x143	0.18	10	10	28.9	KA223MI76143AA1
	33,000	76x214	0.22	8	8	36.1	KA333MI76214AA1

	Capacitance μF	$\varnothing \times L$ mm	Tan δ	ESR	Z	Ir a.c.	PART NUMBER standard insert style no stud
			MAX 100 Hz 20°C	TYP m Ω 100 Hz 20°C	TYP m Ω 10 kHz 20°C	A max 100 Hz 105°C	
RATED VOLTAGE VDC 250V	470	35x60	0.10	211	200	2.8	KA471MJ35060AA1
	680	35x79	0.10	157	150	3.5	KA681MJ35079AA1
	1,000	51x79	0.10	110	95	4.6	KA102MJ51079AA1
	1,500	51x105	0.10	74	65	6.1	KA152MJ51105AA1
	1,500	51x79	0.10	74	65	5.0	KA152MJ51079AA1
	2,200	51x105	0.10	40	36	7.5	KA222MJ51105AA1
	3,300	51x105	0.12	35	29	9.8	KA332MJ51105AA1
	3,300	63x105	0.12	35	29	9.8	KA332MJ63105AA1
	4,700	63x105	0.12	28	25	11.8	KA472MJ63105AA1
	4,700	76x105	0.12	28	25	13.2	KA472MJ76105AA1
	6,800	76x105	0.12	25	21	14.1	KA682MJ76105AA1
	10,000	76x143	0.15	20	19	19.7	KA103MJ76143AA1
	15,000	76x143	0.15	18	18	21.9	KA153MJ76143AA1
	22,000	76x214	0.20	12	11	34.2	KA223MJ76214AA1

KA TYPE SPECIFICATIONS

RATED VOLTAGE VDC	350V	Capacitance	Ø x L	Tan δ	ESR	Z	Ir a.c.	PART NUMBER standard insert style no stud
		µF	mm	MAX 100 Hz 20°C	TYP m Ω 100 Hz 20°C	TYP m Ω 10 kHz 20°C	A max 100 Hz 105°C	
		470	35x60	0.10	170	136	3.3	KA471MK35060AA1
		680	35x79	0.10	108	95	4.0	KA681MK35079AA1
		1,000	51x105	0.10	79	62	5.5	KA102MK51105AA1
		1,000	51x79	0.10	79	62	5.0	KA102MK51079AA1
		1,500	51x105	0.10	60	52	7.4	KA152MK51105AA1
		2,200	51x105	0.10	44	40	9.0	KA222MK51105AA1
		2,200	63x105	0.10	44	40	9.5	KA222MK63105AA1
		3,300	63x105	0.12	35	30	10.1	KA332MK63105AA1
		3,300	76x105	0.12	35	30	12.8	KA332MK76105AA1
		4,700	76x105	0.12	32	25	14.5	KA472MK76105AA1
		4,700	76x143	0.12	32	25	17.5	KA472MK76143AA1
		5,600	76x143	0.15	25	23	18.5	KA562MK76143AA1
		6,800	76x143	0.15	23	21	19.2	KA682MK76143AA1
		10,000	76x143	0.15	18	18	23.0	KA103MK76143AA1
		10,000	76x214	0.15	16	15	27.0	KA103MK76214AA1
		15,000	76x214	0.20	12	12	31.7	KA153MK76214AA1
		22,000	90x220	0.25	8	8	35.4	KA223MK90220AB1

RATED VOLTAGE VDC	400V	Capacitance	Ø x L	Tan δ	ESR	Z	Ir a.c.	PART NUMBER standard insert style no stud
		µF	mm	MAX 100 Hz 20°C	TYP m Ω 100 Hz 20°C	TYP m Ω 10 kHz 20°C	A max 100 Hz 105°C	
		220	35x60	0.10	455	375	2.1	KA221ML35060AA1
		330	35x60	0.10	290	273	2.8	KA331ML35060AA1
		470	35x60	0.10	160	149	3.0	KA471ML35060AA1
		470	35x79	0.10	165	155	3.5	KA471ML35079AA1
		680	51x105	0.10	124	120	5.1	KA681ML51105AA1
		680	51x79	0.10	120	115	4.7	KA681ML51079AA1
		1,000	51x105	0.10	110	85	6.3	KA102ML51105AA1
		1,000	51x79	0.10	105	95	5.8	KA102ML51079AA1
		1,500	51x105	0.10	65	55	7.0	KA152ML51105AA1
		1,500	63x105	0.10	65	55	7.9	KA152ML63105AA1
		2,200	51x105	0.10	50	47	8.3	KA222ML51105AA1
		2,200	63x105	0.10	50	47	9.0	KA222ML63105AA1
		2,200	76x105	0.10	50	47	10.7	KA222ML76105AA1
		3,300	63x105	0.12	35	30	11.0	KA332ML63105AA1
		3,300	76x105	0.12	35	30	13.1	KA332ML76105AA1
		3,300	76x143	0.12	35	30	14.2	KA332ML76143AA1
		4,700	76x105	0.15	30	29	14.9	KA472ML76105AA1
		4,700	76x143	0.15	30	29	18.8	KA472ML76143AA1
		6,800	76x143	0.15	23	22	19.5	KA682ML76143AA1
		10,000	76x143	0.25	34	30	17.8	KA103ML76143AA1
		10,000	76x214	0.15	20	19	26.0	KA103ML76214AA1
		15,000	90x220	0.20	15	12	33.5	KA153ML90220AB1

KA TYPE SPECIFICATIONS

	Capacitance μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER standard insert style no stud
RATED VOLTAGE VDC 450V	220	35x60	0.10	360	300	2.0	KA221MN35060AA1
	330	35x60	0.10	240	210	2.8	KA331MN35060AA1
	470	51x79	0.10	200	179	4.0	KA471MN51079AA1
	680	51x105	0.10	140	128	5.0	KA681MN51105AA1
	680	51x79	0.10	140	128	4.4	KA681MN51079AA1
	1,000	51x105	0.10	100	88	6.4	KA102MN51105AA1
	1,000	51x79	0.10	100	88	4.8	KA102MN51079AA1
	1,500	51x105	0.10	67	55	7.1	KA152MN51105AA1
	1,500	63x105	0.10	67	55	8.0	
	2,200	63x105	0.10	60	55	9.0	KA222MN63105AA1
	2,200	76x105	0.10	60	47	11.2	KA222MN76105AA1
	2,200	76x143	0.10	60	47	12.5	KA222MN76143AA1
	3,300	76x105	0.12	35	30	11.2	KA332MN76105AA1
	3,300	76x143	0.12	35	30	12.9	KA332MN76143AA1
	4,700	76x143	0.15	32	30	15.0	KA472MN76143AA1
	6,800	76x143	0.15	25	22	16.2	KA682MN76143AA1
	10,000	76x143	0.25	34	30	17.8	KA103MN76143AA1
	10,000	76x214	0.20	20	19	23.1	KA103MN76214AA1
12,000	76x214	0.25	15	12	29.8	KA123MN76214AA1	
15,000	90x220	0.20	14	12	32.6	KA153MN90220AB1	

	Capacitance μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER standard insert style no stud
RATED VOLTAGE VDC 500V	1,000	51x105	0.15	159	145	4.0	KA102MP51105AA1
	1,500	63x105	0.15	122	115	5.2	KA152MP63105AA1
	2,200	76x105	0.15	90	85	7.4	KA222MP76105AA1
	2,200	76x143	0.15	90	85	8.2	KA222MP76143AA1
	3,300	76x143	0.20	60	58	10.3	KA332MP76143AA1
	4,700	76x143	0.20	40	37	11.6	KA472MP76143AA1
	6,800	76x214	0.20	24	22	20.2	KA682MP76214AA1

KA TYPE SPECIFICATIONS

