

EMV AND EMVK SERIES SURFACE MOUNT ALUMINUM CAPACITORS

Operating temperature range for **Series EMV**: -40°C to +85°C. Rated lifetime for **Series EMV**: 1000 to 2000 hours at +85°C depending on case size. Operating temperature range for **Series EMVK**: -40°C to +105°C. Rated lifetime for **Series EMVK**: 1000 to 2000 hours at +105°C depending on case size. Capacitance tolerance: ±20% (+20°C, 120 Hz). Leakage current: I = 0.01CV or 3µA, whichever is greater, after 2 minutes at +20°C.

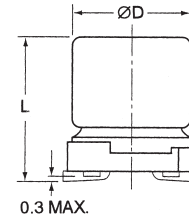
CASE AND SOLDER PAD DIMENSIONS

Case Code	∅D ±0.5	L	A ±0.2	B ±0.2	C ±0.2	W	P	a	b	c
B55	∅3	5.2±0.3	3.3	3.3	3.7	0.45-0.75	0.8	0.8	2.2	1.6
D55	∅4	5.2±0.3	4.3	4.3	5.1	0.5-0.8	1	1	2.6	1.6
E55	∅5	5.2±0.3	5.3	5.3	5.9	0.5-0.8	1.4	1.4	3	1.6
F55	∅6.3	5.2±0.3	6.6	6.6	7.2	0.5-0.8	1.9	1.9	3.5	1.6
F60	∅6.3	5.7±0.3	6.6	6.6	7.2	0.5-0.8	1.9	1.9	3.5	1.6
H63	∅8	6.3±0.5	8.3	8.3	9	0.5-0.8	2.3	2.3	4.5	1.6
HA0	∅8	10±0.5	8.3	8.3	9	0.7-1.1	3.1	3.1	4.2	2.2
JA0	∅10	10±0.5	10.3	10.3	11	0.7-1.1	4.5	4.5	4.4	2.2

Cat. No.	WV (DC)	Cap (µF)	D mm	L mm	Max ESR Ohms 120Hz +20°C	*Max Ripple mA 120Hz 85°C	Net Price
EMVK6R3ADA220MD55G†	6.3	22	4	5.2	22.602	21	\$.14
EMVK6R3DA470ME55G†	6.3	47	5	5.2	10.58	36	\$.19
EMVK6R3ADA101MF55G	6.3	100	6.3	5.2	4.973	56	\$.20
EMV-6R3ADA471MHA0G	6.3	470	8	10	1.411	265	\$.36
EMVK6R3ADA102MJA0G	6.3	1000	10	10	0.663	410	\$.55
EMVK100ADA330ME55G	10	33	5	5.2	12.055	34	\$.19
EMV-100ADA101MF60G	10	100	6.3	5.7	3.315	70	\$.15
EMVK160ADA100MD55G†	16	10	4	5.2	33.15	16	\$.14
EMVK160ADA220ME55G†	16	22	5	5.2	15.068	30	\$.19
EMVK160ADA470MF55G†	16	47	6.3	5.2	7.053	48	\$.20
EMV-160ADA101MF55G	16	100	6.3	5.2	4.31	58	\$.19
EMV-160ADA221MHA0G	16	220	8	10	1.959	215	\$.36
EMV-160ADA331MHA0G	16	330	8	10	1.005	270	\$.36
EMV-160ADA471MJA0G	16	470	10	10	0.917	330	\$.48
EMVK250ADA330MF55G†	25	33	6.3	5.2	8.036	45	\$.20
EMV-250ADA470MF60G	25	47	6.3	5.7	4.937	65	\$.48
EMVK250ADA101MHA0G	25	100	8	10	2.652	180	\$.37
EMV-250ADA101MH63G	25	100	8	6.3	2.652	145	\$.22
EMV-350ADA100ME55G	35	10	5	5.2	19.89	25	\$.18
EMVK350ADA100ME55G	35	10	5	5.2	23.205	25	\$.19
EMVK350ADA220MF55G	35	22	6.3	5.2	10.548	40	\$.20
EMVK350ADA330MH63G	35	33	8	6.3	7.032	80	\$.23
EMV-350ADA330MF60G	35	33	6.3	5.7	6.027	55	\$.19
EMV-350ADA470MH63G	35	47	8	6.3	4.937	105	\$.28
EMV-350ADA101MHA0G	35	100	8	10	2.321	175	\$.36
EMVK350ADA221MJA0G	35	220	10	10	1.055	375	\$.55
EMV-500ADA1R0MB55G	50	1	3	5.2	198.9	5.6	\$.18
EMVK500ADA1R0MD55G	50	1	4	5.2	198.9	5.6	\$.14
EMVK500ADA2R2MD55G	50	2.2	4	5.2	90.409	10	\$.14
EMVK500ADA4R7ME55G	50	4.7	5	5.2	42.319	19	\$.19
EMVK500ADA100MF55G†	50	10	6.3	5.2	19.89	29	\$.20
EMVK500ADA470MHA0G	50	47	8	10	4.232	170	\$.37
EMV-500ADA101MJA0G	50	100	10	10	1.989	195	\$.48
EMVK500ADA101MJA0G	50	100	10	10	1.989	310	\$.55

*Ripple rating for EMVK is at 105°C.

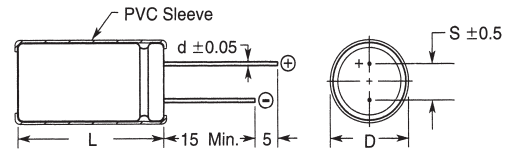
†Same EMVK Series offered as replacement for EMV Series.



APXC SERIES ULTRA LOW ESR SURFACE MOUNT SOLID POLYMER ALUMINUM CAPACITOR

Lead-free construction, ultra low ESR. Tolerance: ±20%. Temperature range: -55°C to 105°C. Rated lifetime: 2000 hours at 105°C. Leakage current I=0.2CV max after 2 minutes at +20°C.

Cat. No.	WV (DC)	Cap (µF)	D mm	L mm	Case Code	Max ESR Ohms 120Hz +20°C	Max Ripple mA 120Hz 85°C	Net Price
APXC2R5ARA181ME60G	2.5	180	5.0	5.7	E60	0.030	2000	\$.67
APXC2R5ARA271MF60G	2.5	270	6.3	5.7	F60	0.020	2700	\$.97
APXC2R5ARA471MH70G	2.5	470	8.0	6.7	H70	0.017	3420	1.50
APXC4R0ARA151ME60G	4.0	150	5.0	5.7	E60	0.030	2000	\$.82
APXC4R0ARA221MF60G	4.0	220	6.3	5.7	F60	0.021	2640	\$.97
APXC4R0ARA331MH70G	4.0	330	8.0	6.7	H70	0.018	3300	1.50
APXC6R3ARA101ME60G	6.3	100	5.0	5.7	E60	0.035	1780	\$.82
APXC6R3ARA181MF60G	6.3	180	6.3	5.7	F60	0.022	2580	\$.97
APXC6R3ARA221MH70G	6.3	220	8.0	6.7	H70	0.018	3300	1.50
APXC100ARA560ME60G	10	56	5.0	5.7	E60	0.040	1660	\$.82
APXC100ARA820MF60G	10	82	6.3	5.7	F60	0.023	2400	\$.97
APXC100ARA151MH70G	10	150	8.0	6.7	H70	0.020	3160	1.50
APXC160ARA390MF60G	16	39	5.0	5.7	F60	0.045	1570	\$.97
APXC160ARA820MH70G	16	82	6.3	5.7	H70	0.025	2300	1.50
APXC160ARA270ME60G	16	27	8.0	6.7	E60	0.025	2830	\$.82



ESME AND EKME SERIES MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

The ESME and EKME series capacitors are standard general purpose capacitors. This series, except for those rated at 350-450 volts, were developed to withstand HCFC cleaning agents for five minutes by ultrasonic, vapour, or immersion. Operating temperature range for **Series ESME**: -40°C to +85°C for 6.3 to 400V and -25°C to +85°C for 450V. Capacitance tolerance for **Series ESME**: ±20% (+20°C, 120Hz). Rated lifetime for **Series ESME**: 2000 hours at +85°C. Operating temperature range for **Series EKME**: -55°C to +105°C for 6.3 to 100V and -40°C to +105°C for 160 to 400V. Capacitance tolerance for **Series EKME**: ±20% (+20°C, 120Hz). Rated lifetime for **Series EKME**: 1000 hours at +105°C.

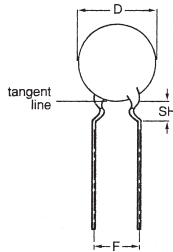
SME LEAKAGE CURRENT RATINGS

DC Rated Voltage	Test Time	Leakage Current (µA)
6.3-100V	After 1 minute	I = 0.03CV or 4µA, whichever is greater
	After 2 minutes	I = 0.01CV or 3µA, whichever is greater
160-450V	After 1 minute	CV ≤ 1000: I = 0.1CV + 40, CV > 1000: I = 0.04CV + 100
	After 5 minutes	CV ≤ 1000: I = 0.03CV + 15, CV > 1000: I = 0.02CV + 25

KME LEAKAGE CURRENT RATINGS

DC Rated Voltage	Test Time	Leakage Current (µA)
6.3-100V	After 2 minutes	I = 0.002CV or 2µA, whichever is greater
160-450V	After 1 minute	CV ≤ 1000: I = 0.1CV + 40, CV > 1000: I = 0.04CV + 100
	After 5 minutes	CV ≤ 1000: I = 0.03CV + 15, CV > 1000: I = 0.02CV + 25

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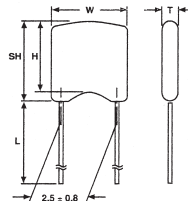


BC COMPONENTS TYPE HV HIGH VOLTAGE DISC CAPACITORS

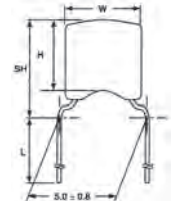
FEATURES: Low losses, high stability, high capacitance in small size, kinked (preferred) or straight leads. Capacitors consist of a ceramic disc both sides of which are silver-plated. Connection leads are made of tinned copper having a diameter of 0.6mm or 0.8mm up to 3kV and 0.8mm for 6kV. Application for 500V ceramic disc: bypassing, coupling, resonant circuit. Application for 1kV-6kV ceramic disc: DC high voltage, pulse high voltage, SMPS, HV power supply, HF ballast. **SPECIFICATIONS:** Operating temperature: Class 1 SL0//C0G -55 to +125°C; Class 2 X7R -55 to +125°C; Class 2 Y5P; Y5V -30 to +85°C.

Cat. No.	TC	Tol	Voltage	Cap. (pF)	D (mm)	F (mm)	Net Price*
D100G20C0GH63J5R	C0G	±2%	100	10	5.0	5.0	\$85.29
D150G20C0GH63J5R	C0G	±2%	100	15	5.0	5.0	85.29
D220G20C0GH63J5R	C0G	±2%	100	22	5.0	5.0	85.29
D270G20C0GH63J5R	C0G	±2%	100	27	5.0	5.0	85.29
D330G20C0GH63J5R	C0G	±2%	100	33	5.0	5.0	85.29
D470G25C0GH63J5R	C0G	±2%	100	47	6.5	5.0	105.50
D101G29C0GH63J5R	C0G	±2%	100	100	7.5	5.0	149.64
D221G43C0GH63J5R	C0G	±2%	100	220	11.0	5.0	243.16
D331G39P3KH63J5R	N1500	±2%	100	330	10.0	5.0	215.85
D471G43P3KH63J5R	N1500	±2%	100	470	11.0	5.0	243.16
S100J25SL0N63J5R	SLO	±5%	1000	10	6.5	5.0	56.49
S220J25SL0N63J5R	SLO	±5%	1000	22	6.5	5.0	56.49
S270J25SL0N63J5R	SLO	±5%	1000	27	6.5	5.0	56.49
S330J25SL0N63J5R	SLO	±5%	1000	33	6.5	5.0	56.49
S470J25SL0N63J5R	SLO	±5%	1000	47	6.5	5.0	56.49
S101J29SL0N63J5R	SLO	±5%	1000	100	7.5	5.0	68.83
S221K25Y5PN63J5R	Y5P	±10%	1000	220	6.5	5.0	52.37
S331K25Y5PN63J5R	Y5P	±10%	1000	330	6.5	5.0	52.37
S471K25Y5PN63J5R	Y5P	±10%	1000	470	6.5	5.0	52.37
S681K29Y5PN63J5R	Y5P	±10%	1000	680	7.5	5.0	61.73
S102K29Y5PN63J5R	Y5P	±10%	1000	1000	7.5	5.0	61.73
S222M29Z5UN63J5R	Z5U	±20%	1000	2200	6.5	5.0	65.09
S332M33Z5UN63J5R	Z5U	±20%	1000	3300	8.5	5.0	149.64
S472M39Z5UN63J5R	Z5U	±20%	1000	4700	10.0	5.0	96.52
S682M43Z5UN63J5R	Z5U	±20%	1000	6800	11.0	5.0	160.86
S103M47Z5UN63J7R	Z5U	±20%	1000	10000	12.0	7.5	120.09
S101K25Y5PP63K5R	Y5P	±10%	2000	100	6.5	5.0	62.85
S221K25Y5PP63K5R	Y5P	±10%	2000	220	6.5	5.0	62.85
S471K29Y5PP63K5R	Y5P	±10%	2000	470	7.5	5.0	83.80
S102K33Y5PP63K5R	Y5P	±10%	2000	1000	8.5	5.0	89.04
S222K43Y5PP63K5R	Y5P	±10%	2000	2200	11.0	5.0	156.00
S103M69Z5UP63K7R	Z5U	±20%	2000	10000	17.5	7.5	242.41
S101K33Y5PR63K7R	Y5P	±10%	3000	100	8.5	7.5	110.36
S221K33Y5PR63K7R	Y5P	±10%	3000	220	8.5	7.5	110.36
S471K33Y5PR63K7R	Y5P	±10%	3000	470	8.5	7.5	110.36
S102K43Y5PR63K7R	Y5P	±10%	3000	1000	11.0	7.5	155.25
S222K59Y5PR63K7R	Y5P	±10%	3000	2200	15.0	7.5	247.65
S102M59Z5U083LOR	Z5U	±20%	6000	1000	15.0	10.0	520.37
S222M75Z5U083LOR	Z5U	±20%	6000	2200	19.0	10.0	792.33

*Net Price per 1000.



L2



H5

BC COMPONENTS MONO-KAP RADIAL CERAMIC CAPACITORS

BC Components Mono-Kap product line provides a wide range of conformally coated multi-layer ceramic capacitors in three dielectrics-C0G Ultra Stable; X7R Stable and Y5V General Purpose. The capacitors are fired through a high temperature profile to mature the ceramic and metal into a homogenous unit. Encapsulation consists of moisture-resistant conformal epoxy coating that meets the flame requirements of UL94V-0. Operating Temperature: -55°C to +125°C for C0G and X7R type; -55°C to +85°C for Z5U type.

SIZE CHART

Size Code	Max. Width	Max. Height	Max. Thickness	Max. Seating Height (SH)	
				L2	H5
15	4.0 (0.15)	4.0 (0.15)	25 (0.100)	5.58 (0.220)	6.50 (0.256)
20	5.0 (0.20)	5.0 (0.20)	3.2 (0.13)	6.58 (0.259)	7.50 (0.295)

Cat. No.	Dielectric	VDC	Cap (pF)	Size Code	L.S. (mm)	Net Price*
K100J15C0GF53L2	C0G	50	10	15	2.5	\$60.60
K150J15C0GF53L2	C0G	50	15	15	2.5	60.60
K180J15C0GF53L2	C0G	50	18	15	2.5	60.60
K220J15C0GF53L2	C0G	50	22	15	2.5	60.60
K270J15C0GF53L2	C0G	50	27	15	2.5	60.60
K330J15C0GF53L2	C0G	50	33	15	2.5	60.60
K390J15C0GF53L2	C0G	50	39	15	2.5	60.60
K470J15C0GF53L2	C0G	50	47	15	2.5	60.60
K560J15C0GF53L2	C0G	50	56	15	2.5	60.60
K680J15C0GF53L2	C0G	50	68	15	2.5	60.60
K820J15C0GF53L2	C0G	50	82	15	2.5	60.60
K101J15C0GF53L2	C0G	50	100	15	2.5	60.60
K151J15C0GF53L2	C0G	50	150	15	2.5	72.95
K221J15C0GF53L2	C0G	50	220	15	2.5	72.95
K331J15C0GF53L2	C0G	50	330	15	2.5	89.78
K471J15C0GF53L2	C0G	50	470	15	2.5	89.78
K681J15C0GF53L2	C0G	50	680	15	2.5	109.98
K102J15C0GF53L2	C0G	50	1000	15	2.5	89.78
K222J15C0GF53L2	C0G	50	2200	15	2.5	185.55
K332J20C0GF53L2	C0G	50	3300	20	2.5	411.88
K100J15C0GH53L2	C0G	100	10	15	2.5	92.40
K220J15C0GH53L2	C0G	100	22	15	2.5	92.40
K330J15C0GH53L2	C0G	100	33	15	2.5	92.40
K470J15C0GH53L2	C0G	100	47	15	2.5	92.40
K101J15C0GH53L2	C0G	100	100	15	2.5	92.40
K221J15C0GH53L2	C0G	100	220	15	2.5	114.85
K471J15C0GH53L2	C0G	100	470	15	2.5	144.03
K102J20C0GH53L2	C0G	100	1000	20	2.5	226.33

Cat. No.	Dielectric	VDC	Cap (pF)	Size Code	L.S. (mm)	Net Price*
K221K15X7RF53L2	X7R	50	220	15	2.5	\$55.37
K471K15X7RF53L2	X7R	50	470	15	2.5	55.37
K102K15X7RF53L2	X7R	50	1000	15	2.5	55.37
K102K15X7RF53H5	X7R	50	1000	15	5.0	55.37
K152K15X7RF53L2	X7R	50	1500	15	2.5	55.74
K222K15X7RF53L2	X7R	50	2200	15	2.5	55.74
K332K15X7RF53L2	X7R	50	3300	15	2.5	55.74
K472K15X7RF53L2	X7R	50	4700	15	2.5	55.74
K682K15X7RF53L2	X7R	50	6800	15	2.5	55.74
K103K15X7RF53L2	X7R	50	0.01µF	15	2.5	55.37
K103K15X7RF53H5	X7R	50	0.01µF	15	5.0	19.66
K223K15X7RF53L2	X7R	50	0.022µF	15	2.5	62.47
K333K15X7RF53L2	X7R	50	0.033µF	15	2.5	66.59
K473K15X7RF53L2	X7R	50	0.047µF	15	2.5	66.22
K683K15X7RF53L2	X7R	50	0.068µF	15	2.5	94.65
K104K15X7RF53L2	X7R	50	0.1µF	15	2.5	64.35
K104K15X7RF53H5	X7R	50	0.1µF	15	5.0	64.35
K224K20X7RF53H5	X7R	50	0.22µF	20	5.0	184.43
K334K20X7RF53H5	X7R	50	0.33µF	20	5.0	389.06
K221K15X7RH53L2	X7R	100	220	15	2.5	62.47
K471K15X7RH53L2	X7R	100	470	15	2.5	62.47
K102K15X7RH53L2	X7R	100	1000	15	2.5	62.10
K332K15X7RH53L2	X7R	100	2200	15	2.5	66.22
K222K15X7RH53L2	X7R	100	3300	15	2.5	66.22
K472K15X7RH53L2	X7R	100	4700	15	2.5	66.22
K103K15X7RH53L2	X7R	100	0.01µF	15	2.5	80.06
K223K15X7RH53L2	X7R	100	0.022µF	15	2.5	120.09
K473K20X7RH53L2	X7R	100	0.047µF	20	2.5	171.71
K105Z20Y5VF53H5	Y5V	50	1µF	20	5.0	141.78
K105Z20Y5VF53L2	Y5V	50	1µF	20	2.5	141.78

*Net Price per 1000.