

VD series

STANDARD RATINGS

VDC (SV)	Cap (μF)	Size ΦDxL(mm)	ESR (mΩ, 20°C, 100kHz) (max.)	Rated ripple current (mA rms/105°C, 100kHz)	Leakage Current (μA)(max.)	Part Number
35 (41)	22	5×10	60	1000	500	SVD1VM220D10E00RAXXX
		5×10	60	1100	500	SVD1VM330D10E00RAXXX
	33	6.3×8	60	1100	500	SVD1VM330E08E00RAXXX
		6.3×8	50	1500	500	SVD1VM470E08E00RAXXX
	47	6.3×6	80	1100	500	SVD1VM470E06E00RAXXX
		6.3×11	60	2000	700	SVD1VM101E11E00RAXXX
	100	8×9	60	2000	700	SVD1VM101F09E00RAXXX
	120	8×9	50	2100	840	SVD1VM121F09E00RAXXX
		8×11	50	2400	1540	SVD1VM221F11E00RAXXX
	220	10×10	80	2100	1540	SVD1VM221G10E00RAXXX
	330	10×12	50	2700	2310	SVD1VM331G12E00RAXXX
	470	10×13	50	3000	3290	SVD1VM471G13E00RAXXX
	560	10×14	50	3200	3920	SVD1VM561G14E00RAXXX
50 (58)	22	6.3×6	80	800	500	SVD1HM220E06E00RAXXX
	33	6.3×8	80	850	500	SVD1HM330E08E00RAXXX
	47	6.3×9	80	1400	500	SVD1HM470E09E00RAXXX
	100	8×9	60	1800	1000	SVD1HM101F09E00RAXXX
		8×11	50	2000	1000	SVD1HM101F11E00RAXXX
	120	8×11	50	2000	1200	SVD1HM121F11E00RAXXX
	220	10×12	50	2300	2200	SVD1HM221G12E00RAXXX
63 (73)	10	6.3×6	100	450	500	SVD1JM100E06E00RAXXX
	22	6.3×6	100	450	500	SVD1JM220E06E00RAXXX
	47	8×11	60	1300	592	SVD1JM470F11E00RAXXX
	56	8×11	60	1400	706	SVD1JM560F11E00RAXXX
	100	10×12	60	1600	1260	SVD1JM101G12E00RAXXX

※ Specifications subject to change without notice.

SURFACE MOUNT TYPE ALUMINUM ELECTROLYTIC CAPACITORS

MK series

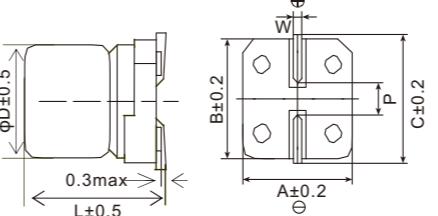
- Endurance: +105°C 2,000 ~ 3,000 hours
- Designed for surface mounting on high density PC board
- RoHS Compliant



SPECIFICATIONS

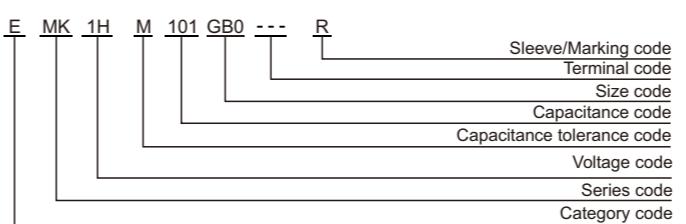
Items	Characteristics											
Category Temperature Range	-40~+105°C(6.3~450 Vdc)											
Rated Voltage Range	6.3~450 Vdc											
Capacitance Tolerance	±20%(M)											
Leakage Current	(at 20°C, 120Hz) 6.3~100 Vdc I≤0.01CV or 3μA, whichever is greater. (2 minutes) 160~450 Vdc Where, I:Max.leakage current (μA),C:Nominal capacitance (μF),V: Rated voltage (V)											
Dissipation Factor (tanδ)	Rated Voltage(Vdc)	6.3	10	16	25	35	50	63	80	100	160~250	400~450
	tanδ (max.)	D80~E80	0.30	0.24	0.20	0.16	0.14	0.12	0.12	0.12	-	0.20
	EBO~MNO	0.40	0.30	0.26	0.16	0.14	0.12	0.12	0.12	0.12	0.15	0.20
Low Temperature Characteristics (Max. Impedance Ratio)	Rated Voltage(Vdc)	6.3	10	16	25	35	50	63	80	100	160~250	400~450
	Z(-25°C)/Z(+20°C)	4	3	2	2	2	2	2	2	2	6	
	Z(-40°C)/Z(+20°C)	10	8	6	4	3	3	3	3	3	10	18
Endurance	The specifications listed below shall be met when the capacitors are restored to 20°C after rated voltage is applied for a specified period of time at 105°C. Load Life 2,000 hours(160~450Vdc: 3,000 hours) Capacitance Change ≤±20% of the initial value Dissipation Factor (tanδ) ≤200% of the initial specified value Leakage Current ≤The initial specified value											
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after leaving them under no load at 105°C for 1,000 hours (6.3~100Vdc: 500 hours). Capacitance Change ≤±20% of the initial value Dissipation Factor (tanδ) ≤200% of the initial specified value Leakage Current ≤200% of the initial specified value											

DIMENSIONS[mm]



Size code	D	L	A	B	C	W	P
D80	5	7.7	5.3	5.3	5.9	0.5~0.8	1.4
E80	6.3	7.7	6.6	6.6	7.2	0.5~0.8	1.9
EB0	6.3	10.5	6.6	6.6	7.2	0.5~0.8	1.9
FB0	8	10.5	8.3	8.3	9.0	0.7~1.1	3.1
FD0	8	12.5	8.3	8.3	9.0	0.7~1.1	3.1
FE0	8	13.5	8.3	8.3	9.0	0.7~1.1	3.1
FG0	8	15.5	8.3	8.3	9.0	0.7~1.1	3.1
GB0	10	10.5	10.3	10.3	11.0	0.7~1.1	4.5
GD0	10	12.5	10.3	10.3	11.0	0.7~1.1	4.5
GE0	10	13.5	10.3	10.3	11.0	0.7~1.1	4.5
GH0	10	16.5	10.3	10.3	11.0	0.7~1.1	4.5
WE0	12.5	13.5	13.0	13.0	13.7	1.0~1.3	4.5
WG5	12.5	16.0	13.0	13.0	13.7	1.0~1.3	4.5
WM5	12.5	21.0	13.0	13.0	13.7	1.0~1.3	4.5
LH0	16	16.5	17.0	17.0	18.0	1.0~1.3	6.5
LN0	16	21.5	17.0	17.0	18.0	1.0~1.3	6.5
MH0	18	16.5	19.0	19.0	20.0	1.0~1.3	6.5
MN0	18	21.5	19.0	19.0	20.0	1.0~1.3	6.5

PART NUMBERING SYSTEM



RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Freq.(Hz)	120	1k	10k	100k
Rated voltage(Vdc)	0.50	0.80	0.90	1.00

MK series

■ STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Size code	tanδ	Rated ripple current (mA rms/105°C, 100kHz)	Part Number
6.3(0J)	100	D80	0.30	105	EMK0JM101D80D00*
	220	E80	0.30	160	EMK0JM221E80D00*
	330	FB0	0.40	340	EMK0JM331FB0D00*
	1000	GB0	0.40	860	EMK0JM102GB0D00*
10(1A)	33	D80	0.24	105	EMK1AM330D80D00*
	100	E80	0.24	175	EMK1AM101E80D00*
	220	E80	0.24	180	EMK1AM221E80D00*
	330	FB0	0.30	340	EMK1AM331FB0D00*
	470	FB0	0.30	360	EMK1AM471FB0D00*
	820	GB0	0.30	860	EMK1AM821GB0D00*
16(1C)	47	D80	0.20	105	EMK1CM470D80D00*
	100	E80	0.20	175	EMK1CM101E80D00*
	150	E80	0.20	190	EMK1CM151E80D00*
	220	FB0	0.26	500	EMK1CM221FB0D00*
	330	FB0	0.26	545	EMK1CM331FB0D00*
	470	GB0	0.26	800	EMK1CM471GB0D00*
25(1E)	33	D80	0.16	105	EMK1EM330D80D00*
	47	E80	0.16	180	EMK1EM470E80D00*
	100	E80	0.16	205	EMK1EM101E80D00*
	220	FB0	0.16	550	EMK1EM221FB0D00*
	330	GB0	0.16	780	EMK1EM331GB0D00*
	470	GD0	0.16	875	EMK1EM471GD0D00*
35(1V)	10	D80	0.14	105	EMK1VM100D80D00*
	22	D80	0.14	110	EMK1VM220D80D00*
	47	E80	0.14	210	EMK1VM470E80D00*
	100	FB0	0.14	575	EMK1VM101FB0D00*
	220	GB0	0.14	835	EMK1VM221GB0D00*
	330	GD0	0.14	900	EMK1VM331GD0D00*
50(1H)	10	D80	0.12	90	EMK1HM100D80D00*
	22	E80	0.12	175	EMK1HM220E80D00*
	33	E80	0.12	180	EMK1HM330E80D00*
	47	FB0	0.12	540	EMK1HM470FB0D00*
	100	GB0	0.12	700	EMK1HM101GB0D00*
	220	WE0	0.12	900	EMK1HM221WE0D00*
63(1J)	10	D80	0.12	85	EMK1JM100D80D00*
	22	E80	0.12	150	EMK1JM220E80D00*
	33	FB0	0.12	375	EMK1JM330FB0D00*
	47	FB0	0.12	450	EMK1JM470FB0D00*
	100	GB0	0.12	575	EMK1JM101GB0D00*
	220	WE0	0.12	890	EMK1JM221WE0D00*
80(1B)	10	E80	0.12	140	EMK1BM100E80D00*
	22	FB0	0.12	375	EMK1BM220FB0D00*
	33	FB0	0.12	450	EMK1BM330FB0D00*
	47	GB0	0.12	575	EMK1BM470GB0D00*
	100	GD0	0.12	600	EMK1BM101GD0D00*
	150	WE0	0.12	800	EMK1BM151WE0D00*
100(1K)	220	WG5	0.12	960	EMK1BM221WG5D00*
	4.7	D80	0.12	70	EMK1KM4R7D80D00*
	10	E80	0.12	135	EMK1KM100E80D00*
	22	FB0	0.12	345	EMK1KM220FB0D00*
	33	GB0	0.12	560	EMK1KM330GB0D00*
	47	GB0	0.12	575	EMK1KM470GB0D00*
100(1K)	100	WE0	0.12	680	EMK1KM101WE0D00*

MK series

■ STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Size code	tanδ	Rated ripple current (mA rms/105°C, 100kHz)	Part Number
160(2C)	10	GB0	0.15	90	EMK2CM100GB0D00*
	15	GB0	0.15	136	EMK2CM150GB0D00*
	22	GE0	0.15	180	EMK2CM220GE0D00*
	WE0	WE0	0.15	200	EMK2CM220WE0D00*
	33	GH0	0.15	240	EMK2CM330GH0D00*
	WE0	WG5	0.15	310	EMK2CM330WE0D00*
	47	LH0	0.15	420	EMK2CM470LH0D00*
	68	LNO	0.15	520	EMK2CM680LN0D00*
	MHO	MHO	0.15	660	EMK2CM680MH0D00*
	100	LNO	0.15	780	EMK2CM101LN0D00*
200(2D)	10	GB0	0.15	120	EMK2DM100GB0D00*
	15	GB0	0.15	164	EMK2DM150GB0D00*
	22	GE0	0.15	200	EMK2DM220GE0D00*
	WG5	WG5	0.15	236	EMK2DM220WG5D00*
	33	GH0	0.15	260	EMK2DM330GH0D00*
	WG5	WM5	0.15	300	EMK2DM330WG5D00*
	47	LNO	0.15	440	EMK2DM470WM5D00*
	68	LNO	0.15	556	EMK2DM470LN0D00*
	MNO	LNO	0.15	680	EMK2DM680LN0D00*
	2.2	EBO	0.15	56	EMK2EM2R2EB0D00*
250(2E)	3.3	EBO	0.15	68	EMK2EM3R3EB0D00*
	4.7	FB0	0.15	96	EMK2EM4R7FB0D00*
	GB0	GB0	0.15	104	EMK2EM4R7GB0D00*
	10	WE0	0.15	184	EMK2EM100WE0D00*
	22	LH0	0.15	364	EMK2EM220LH0D00*
	33	LNO	0.15	470	EMK2EM330LN0D00*
	MHO	MHO	0.15	470	EMK2EM330MH0D00*
	47	MNO	0.15	580	EMK2EM470MN0D00*
	1	EBO	0.20	28	EMK2GM010E80D00*
	1.5	EBO	0.20	36	EMK2GM1R5EB0D00*
400(2G)	2.2	FB0	0.20	44	EMK2GM2R2FB0D00*
	3.3	FB0	0.20	52	EMK2GM2R2FB0D00*
	FB0	FB0	0.20	64	EMK2GM3R3FB0D00*
	GB0	GB0	0.20	72	EMK2GM3R3GB0D00*
	FE0	FE0	0.20	72	EMK2GM3R9FE0D00*
	GB0	GB0	0.20	76	EMK2GM3R9GB0D00*
	FB0	FB0	0.20	78	EMK2GM4R7FB0D00*
	4.7	FDO	0.20	80	EMK2GM4R7FD0D00*
	GB0	GB0	0.20	84	EMK2GM4R7GB0D00*
	FDO	FDO	0.20	96	EMK2GM5R6FD0D00*
450(2W)	6.8	FE0	0.20	108	EMK2GM6R8FE0D00*
	8.2	FG0	0.20	130	EMK2GM8R2FG0D00*
	10	GH0	0.20	156	EMK2GM100GH0D00*
	LH0	LH0	0.20	176	EMK2GM100LH0D00*
	15	WG5	0.20	184	EMK2GM150WG5D00*
	LH0	LH0	0.20	210	EMK2GM150LH0D00*
	22	LNO	0.20	260	EMK2GM220LN0D00*
	33	MNO	0.20	280	EMK2GM330MN0D00*
	2.2	GB0	0.20	50	EMK2WM2R2GB0D00*
	3.3	WE0	0.20	80	EMK2WM3R3WE0D00*

Note: ** may be "R" or "T".

"R": Capacitors with red marking
 "T": Capacitors with PET sleeve

MK series

■ STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Size code	tanδ	Rated ripple current (mA rms/105°C, 100kHz)	Part Number
6.3(0J)	100	D80	0.30	105	EMK0JM101D80D00*
	220	E80	0.30	160	EMK0JM221E80D00*
	330	FB0	0.40	340	EMK0JM331FB0D00*
	1000	GB0	0.40	860	EMK0JM102GB0D00*
10(1A)	33	D80	0.24	105	EMK1AM330D80D00*
	100	E80	0.24	175	EMK1AM101E80D00*
	220	E80	0.24	180	EMK1AM221E80D00*
	330	FB0	0.30	340	EMK1AM331FB0D00*
	470	FB0	0.30	360	EMK1AM471FB0D00*
	820	GB0	0.30	860	EMK1AM821GB0D00*
16(1C)	47	D80	0.20	105	EMK1CM470D80D00*
	100	E80	0.20	175	EMK1CM101E80D00*
	150	E80	0.20	190	EMK1CM151E80D00*
	220	FB0	0.26	500	EMK1CM221FB0D00*
	330	FB0	0.26	545	EMK1CM331FB0D00*
	470	GB0	0.26	800	EMK1CM471GB0D00*
25(1E)	33	D80	0.16	105	EMK1EM330D80D00*
	47	E80	0.16	180	EMK1EM470E80D00*
	100	E80	0.16	205	EMK1EM101E80D00*
	220	FB0	0.16	550	EMK1EM221FB0D00*
	330	GB0	0.16	780	EMK1EM331GB0D00*
	470	GD0	0.16	875	EMK1EM471GD0D00*
35(1V)	10	D80	0.14	105	EMK1VM100D80D00*
	22	D80	0.14	110	EMK1VM220D80D00*
	47	E80	0.14	210	EMK1VM470E80D00*
	100	FB0	0.14	575	EMK1VM101FB0D00*
	220	GB0	0.14	835	EMK1VM221GB0D00*
	330	GD0	0.14	900	EMK1VM331GD0D00*
50(1H)	10	D80	0.12	90	EMK1HM100D80D00*
	22	E80	0.12	175	EMK1HM220E80D00*
	33	E80	0.12	180	EMK1HM330E80D00*
	47	FB0	0.12	540	EMK1HM470FB0D00*
	100	GB0	0.12	700	EMK1HM101GB0D00*
	220	WE0	0.12	900	EMK1HM221WE0D00*
63(1J)	10	D80	0.12	85	EMK1JM100D80D00*
	22	E80	0.12	150	EMK1JM220E80D00*
	33	FB0	0.12	375	EMK1JM330FB0D00*
	47	FB0	0.12	450	EMK1JM470FB0D00*
	100	GB0	0.12	575	EMK1JM101GB0D00*
	220	WE0	0.12	890	EMK1JM221WE0D00*
80(1B)	10	E80	0.12	140	EMK1BM100E80D00*
	22	FB0	0.12	375	EMK1BM220FB0D00*
	33	FB0	0.12	450	EMK1BM330FB0D00*
	47	GB0	0.12	575	EMK1BM470GB0D00*
	100	GD0	0.12	600	EMK1BM101GD0D00*
	150	WE0	0.12	800	EMK1BM151WE0D00*
100(1K)	220	WG5	0.12	960	EMK1BM221WG5D00*
	4.7	D80	0.12	70	EMK1KM4R7D80D00*
	10	E80	0.12	135	EMK1KM100E80D00*
	22	FB0	0.12	345	EMK1KM220FB0D00*
	33	GB0	0.12	560	EMK1KM330GB0D00*
	47	GB0	0.12	575	EMK1KM470GB0D00*
100(1K)	100	WE0	0.12	680	EMK1KM101WE0D00*

MK series

■ STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Size code	tanδ	Rated ripple current (mA rms/105°C, 100kHz)	Part Number
160(2C)	10	GB0	0.15	90	EMK2CM100GB0D00*
	15	GB0	0.15	136	EMK2CM150GB0D00*
	22	GE0	0.15	180	EMK2CM220GE0D00*
	WE0	WE0	0.15	200	EMK2CM220WE0D00*
	33	GH0	0.15	240	EMK2CM330GH0D00*
	WE0	WG5	0.15	310	EMK2CM330WE0D00*
	47	LH0	0.15	420	EMK2CM470LH0D00*
	68	LNO	0.15	520	EMK2CM680LN0D00*
	MHO	MHO	0.15	660	EMK2CM680MH0D00*
	100	LNO	0.15	780	EMK2CM101LN0D00*
200(2D)	10	GB0	0.15	120	EMK2DM100GB0D00*
	15	GB0	0.15	164	EMK2DM150GB0D00*
	22	GE0	0.15	200	EMK2DM220GE0D00*
	WG5	WG5	0.15	236	EMK2DM220WG5D00*
	33	GH0	0.15	260	EMK2DM330GH0D00*
	WG5	WM5	0.15	300	EMK2DM330WG5D00*
	47	LNO	0.15	440	EMK2DM470WM5D00*
	68	LNO	0.15	556	EMK2DM470LN0D00*
	MNO	LNO	0.15	680	EMK2DM680LN0D00*
	2.2	EBO	0.15	56	EMK2EM2R2EB0D00*
250(2E)	3.3	EBO	0.15	68	EMK2EM3R3EB0D00*
	4.7	FB0	0.15	96	EMK2EM4R7FB0D00*
	10	WE0	0.15	104	EMK2EM4R7GB0D00*
	22	LH0	0.15	184	EMK2EM100WE0D00*
	22	LNO	0.15	364	EMK2EM220LH0D00*
	33	LNO	0.15	470	EMK2EM330LN0D00*
	MHO	MHO	0.15	470	EMK2EM330MH0D00*
	47	MNO	0.15	580	EMK2EM470MN0D00*
	1	EBO	0.20	28	EMK2GM010E80D00*
	1.5	EBO	0.20	36	EMK2GM1R5EB0D00*
400(2G)	2.2	FB0	0.20	44	EMK2GM2R2FB0D00*
	3.3	FB0	0.20	52	EMK2GM2R2FB0D00*
	3.3	FB0	0.20	64	EMK2GM3R3FB0D00*
	1.5	FB0	0.20	72	EMK2GM3R3GB0D00*
	3.9	FB0	0.20	72	EMK2GM3R9FE0D00*
	3.9	FB0	0.20	76	EMK2GM3R9GB0D00*
	4.7	FD0	0.20	78	EMK2GM4R7FB0D00*
	4.7	FD0	0.20	80	EMK2GM4R7FD0D00*
	5.6	FB0	0.20	84	EMK2GM4R7GB0D00*
	6.8	FE0	0.20	96	EMK2GM5R6FD0D00*
450(2W)	8.2	FG0	0.20	108	EMK2GM6R8FE0D00*
	10	GH0	0.20	130	EMK2GM8R2FG0D00*
	10	LH0	0.20	156	EMK2GM100GH0D00*
	15	WG5	0.20	176	EMK2GM100LH0D00*
	15	LH0	0.20	184	EMK2GM150WG5D00*
	22	LNO	0.20	210	EMK2GM150LH0D00*
	22	LNO	0.20	260	EMK2GM220LN0D00*
	33	MNO	0.20	280	EMK2GM330MN0D00*
	2.2	GB0	0.20	50	EMK2WM2R2GB0D00*
	3.3	WE0	0.20	80	EMK2WM3R3WE0D00*

Note: ** may be "R" or "T".

"R": Capacitors with red marking

"T": Capacitors with PET sleeve

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Aluminium Electrolytic Capacitors - SMD category:

Click to view products by Aihua manufacturer:

Other Similar products are found below :

[EEV-FK1E332W](#) [ULV2H1R8MNL1GS](#) [MAL214099813E3](#) [CA025M4R70REB-0405](#) [HUB1800-S](#) [RYK-50V101MG5TT-FL](#)
[107AXZ016MQ5](#) [RVJ-50V101MH10U-R](#) [EMVH101GRA221MMN0S](#) [MAL214097402E3](#) [MAL215375471E3](#) [MAL224699909E3](#)
[MAL224699813E3](#) [MAL215099818E3](#) [AEH1213221M050R](#) [AEH1010331M025R](#) [AEA1010102M016R](#) [AEH1012471M016R](#)
[MAL213967339E3](#) [ZSC00AF2211EARL](#) [VB1E100MB054000CE0](#) [VD4.7UF400V90RV0094](#) [FZ470UF25V90RV0113](#)
[GVT1H476M0608CNVC](#) [GVE1V226M0506CNVC](#) [GVT1H226M0606CNVC](#) [ATB106M050D058](#) [ATB476M050F065](#) [ATB476M035E058](#)
[ATB107M016E058](#) [ATB107M035E077](#) [EMHL250ARA221MHA0G](#) [ATB477M016F102](#) [EMK1EM331FB0D00R](#) [EMF1CM221FB0D00R](#)
[EMF1CM331FB0D00R](#) [EMF1CM471FB0D00R](#) [EMK1JM101GB0D00R](#) [EMK1AM102GB0D00R](#) [EMK1HM221GB0D00R](#)
[DV221M6R3E055ETR](#) [DV221M025E077ETR](#) [RV331M025F105ETR](#) [HV100M035B055ETR](#) [VH1J101MG105000CE0](#)
[VD1H221MG105000CE0](#) [VD1C100MB054000CE0](#) [VD2A100ME077000CE0](#) [RVT1A101M0505](#) [VP1C221M0605](#)