

Alchip® MVH Series

- Endurance : 125°C 1000 to 5000 hours
- Suitable to fit for automotive equipment
- Solvent-proof type (10 to 50V) (see PRECAUTIONS AND GUIDELINES)
- Pb-free design

MVH

125°C
size extended
MVK

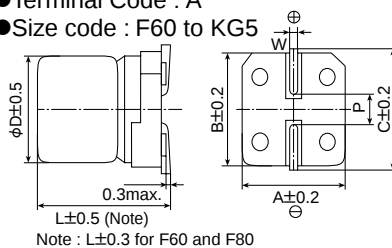


SPECIFICATIONS

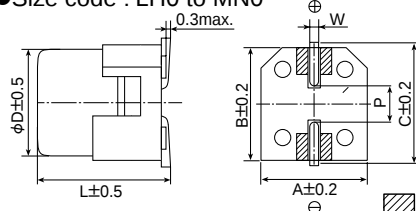
Items	Characteristics										
Category											
Temperature Range	-40 to +125°C										
Rated Voltage Range	10 to 450V _{dc}										
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)										
Leakage Current	10 to 100V _{dc}				160 to 450V _{dc}						
	I=0.03CV or 4μA, whichever is greater.				I=0.04CV+100max						
	Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes)										
Dissipation Factor (tanδ)	Rated voltage (V _{dc})	10V	16V	25V	35V	50V	63V	100V	160 to 250V	400 & 450V	
	tanδ (Max.)	F60 to JA0	0.24	0.20	0.16	0.14	0.14	0.18	0.18	—	—
		KE0 to MN0	0.22	0.18	0.16	0.14	0.12	0.14	0.10	0.20	0.24
	When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase. (at 20°C, 120Hz)										
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	10V	16V	25V	35V	50V	63V	100V	160 to 250V	400 & 450V	
	F60 to JA0	Z(−25°C)/Z(+20°C)	4	3	2	2	2	2	2	—	—
		Z(−40°C)/Z(+20°C)	10	8	6	4	4	4	4	—	—
	KE0 to MN0	Z(−25°C)/Z(+20°C)	4	3	2	2	2	2	2	3	6
		Z(−40°C)/Z(+20°C)	8	6	4	3	3	3	3	6	10
(at 120Hz)											
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for the specified time at 125°C.										
	Time	F60 to H63 (10 to 100V _{dc}) : 1000hours HA0 to JA0 (10 to 100V _{dc}) : 2000hours KE0 to MN0 (10 to 100V _{dc}) : 5000hours KE0 to MN0 (160 to 450V _{dc}) : 2000hours									
	Capacitance change	≤±30% of the initial value									
	D.F. (tanδ)	≤300% 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 exposing them for 1000 hours (500 hours for 350 to 450WV) at 125°C without voltage applied.										
	Rated voltage(V _{dc})	10 to 50V _{dc}					63 to 450V _{dc}				
	Capacitance change	≤±30% of the initial value					≤±30% of the initial value				
	D.F. (tanδ)	≤300% of the initial specified value					≤300% of the initial specified value				
	Leakage current	≤The initial specified value					≤500% of the initial specified value				

DIMENSIONS [mm]

- Terminal Code : A
- Size code : F60 to KG5



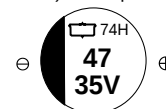
- Terminal Code : G
- Size code : LH0 to MN0



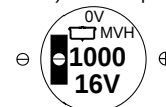
Size code	D	L	A	B	C	W	P
F60	6.3	5.7	6.6	6.6	7.2	0.5 to 0.8	1.9
F80	6.3	7.7	6.6	6.6	7.2	0.5 to 0.8	1.9
H63	8	6.3	8.3	8.3	9.0	0.5 to 0.8	2.3
HA0	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1
JA0	10	10.0	10.3	10.3	11.0	0.7 to 1.1	4.5
KE0	12.5	13.5	13.0	13.0	13.7	1.0 to 1.3	4.2
KG5	12.5	16.0	13.0	13.0	13.7	1.0 to 1.3	4.2
LH0	16	16.5	17.0	17.0	18.0	1.0 to 1.3	6.5
LN0	16	21.5	17.0	17.0	18.0	1.0 to 1.3	6.5
MH0	18	16.5	19.0	19.0	20.0	1.0 to 1.3	6.5
MN0	18	21.5	19.0	19.0	20.0	1.0 to 1.3	6.5

MARKING

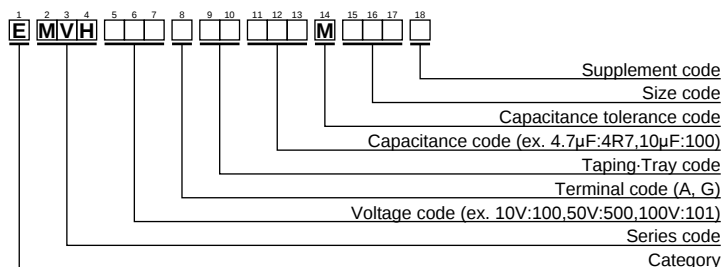
F60 to JA0
EX) 35V47μF



KE0 to MN0
EX) 16V1000μF



◆PART NUMBERING SYSTEM



Please refer to "A guide to global code (surface mount type)"

◆STANDARD RATINGS

□□ is non solvent-proof (63 to 450V_{dc}).

WV (V _{dc})	Cap (µF)	Size code	ESR (Ω _{max} / 100kHz)		Rated ripple current (mA _{rms} /125°C)		Part No.
			20°C	-40°C	100kHz	120Hz	
10	100	F80	2.3	46.0	72	—	EMVH100ADA101MF80G
	100	H63	2.3	46.0	72	—	EMVH100ADA101MH63G
	220	HA0	1.0	20.0	136	—	EMVH100ADA221MHA0G
	330	JA0	0.70	13.4	188	—	EMVH100ADA331MJA0G
	1000	KE0	0.14	2.1	750	—	EMVH100A□□102MKE0S
	2200	LH0	0.10	1.5	1000	—	EMVH100GTR222MLH0S
	2200	MH0	0.10	1.5	1200	—	EMVH100GTR222MMH0S
	3300	MH0	0.10	1.5	1200	—	EMVH100GTR332MMH0S
16	4700	MN0	0.058	0.87	1550	—	EMVH100GTR472MMN0S
	47	F60	3.3	66.0	43	—	EMVH160ADA470MF60G
	470	KE0	0.14	2.1	750	—	EMVH160A□□471MKE0S
	680	KE0	0.14	2.1	750	—	EMVH160A□□681MKE0S
	680	LH0	0.10	1.5	1000	—	EMVH160GTR681MLH0S
	1000	MH0	0.10	1.5	1200	—	EMVH160GTR102MMH0S
	2200	MH0	0.10	1.5	1200	—	EMVH160GTR222MMH0S
25	33	F60	3.3	66.0	45	—	EMVH250ADA330MF60G
	47	F80	2.3	46.0	68	—	EMVH250ADA470MF80G
	47	H63	2.3	46.0	68	—	EMVH250ADA470MH63G
	100	HA0	1.0	20.0	126	—	EMVH250ADA101MHA0G
	220	JA0	0.70	13.4	211	—	EMVH250ADA221MJA0G
	330	KE0	0.14	2.1	750	—	EMVH250A□□331MKE0S
	470	KE0	0.14	2.1	750	—	EMVH250A□□471MKE0S
	470	LH0	0.10	1.5	1000	—	EMVH250GTR471MLH0S
	680	LH0	0.10	1.5	1000	—	EMVH250GTR681MLH0S
	680	MH0	0.10	1.5	1200	—	EMVH250GTR681MMH0S
35	1000	MN0	0.058	0.87	1550	—	EMVH250GTR102MMN0S
	10	F60	3.3	66.0	27	—	EMVH350ADA100MF60G
	22	F60	3.3	66.0	39	—	EMVH350ADA220MF60G
	33	F80	2.3	46.0	62	—	EMVH350ADA330MF80G
	33	H63	2.3	46.0	62	—	EMVH350ADA330MH63G
	47	HA0	1.0	20.0	92	—	EMVH350ADA470MHA0G
	100	JA0	0.70	13.4	151	—	EMVH350ADA101MJA0G
	330	KE0	0.14	2.1	750	—	EMVH350A□□331MKE0S
	330	LH0	0.10	1.5	1000	—	EMVH350GTR331MLH0S
	470	KG5	0.11	1.5	900	—	EMVH350A□□471MKG5S
50	470	LH0	0.10	1.5	1000	—	EMVH350GTR471MLH0S
	680	MH0	0.10	1.5	1200	—	EMVH350GTR681MMH0S
	10	F60	3.3	66.0	38	—	EMVH500ADA100MF60G
	22	F80	2.3	46.0	50	—	EMVH500ADA220MF80G
	22	H63	2.3	46.0	50	—	EMVH500ADA220MH63G
	33	HA0	1.0	20.0	83	—	EMVH500ADA330MHA0G
50	47	JA0	0.70	13.4	111	—	EMVH500ADA470MJA0G
	100	KE0	0.23	3.5	550	—	EMVH500A□□101MKE0S
	220	KE0	0.23	3.5	550	—	EMVH500A□□221MKE0S
	220	LH0	0.15	2.3	850	—	EMVH500GTR221MLH0S
	330	KG5	0.18	2.7	700	—	EMVH500A□□331MKG5S
	330	LH0	0.15	2.3	850	—	EMVH500GTR331MLH0S
	470	MH0	0.15	2.3	920	—	EMVH500GTR471MMH0S
63	10	F80	2.3	115	42	—	EMVH630ADA100MF80G
	10	H63	2.3	115	42	—	EMVH630ADA100MH63G
	22	HA0	1.0	50.0	56	—	EMVH630ADA220MHA0G
	33	JA0	0.70	35.0	71	—	EMVH630ADA330MJA0G
	100	KE0	0.25	12.5	500	—	EMVH630A□□101MKE0S
	220	KG5	0.20	10.0	600	—	EMVH630A□□221MKG5S
	330	LH0	0.18	9.0	820	—	EMVH630GTR331MLH0S
	470	LN0	0.11	5.5	1100	—	EMVH630GTR471MLN0S
100	10	HA0	1.0	50.0	53	—	EMVH101ADA100MHA0G
	22	JA0	0.70	35.0	63	—	EMVH101ADA220MJA0G
	47	KE0	0.33	16.5	450	—	EMVH101A□□470MKE0S
	68	KG5	0.26	13.0	550	—	EMVH101A□□680MKG5S
	100	LH0	0.24	12.0	650	—	EMVH101GTR101MLH0S
	220	MN0	0.16	8.0	950	—	EMVH101GTR221MMN0S
160	10	KE0	—	—	—	100	EMVH161A□□100MKE0S
	22	LH0	—	—	—	180	EMVH161GTR220MLH0S
	33	MH0	—	—	—	245	EMVH161GTR330MMH0S
	68	MN0	—	—	—	380	EMVH161GTR680MMN0S
200	10	KE0	—	—	—	100	EMVH201A□□100MKE0S
	22	LH0	—	—	—	180	EMVH201GTR220MLH0S
	33	LN0	—	—	—	250	EMVH201GTR330MLN0S
	33	MH0	—	—	—	245	EMVH201GTR330MMH0S
	47	MN0	—	—	—	315	EMVH201GTR470MMN0S
250	10	KG5	—	—	—	110	EMVH251A□□100MKG5S
	22	LN0	—	—	—	200	EMVH251GTR220MLN0S
	22	MH0	—	—	—	205	EMVH251GTR220MMH0S
	33	MN0	—	—	—	260	EMVH251GTR330MMN0S
400	4.7	KE0	—	—	—	70	EMVH401A□□4R7MKE0S
	6.8	LH0	—	—	—	100	EMVH401GTR6R8MLH0S
	10	LN0	—	—	—	140	EMVH401GTR100MLN0S
	10	MH0	—	—	—	135	EMVH401GTR100MMH0S
450	3.3	KG5	—	—	—	65	EMVH451A□□3R3MKG5S
	4.7	LH0	—	—	—	85	EMVH451GTR4R7MLH0S
	10	MN0	—	—	—	145	EMVH451GTR100MMN0S

□□ : Taping / Tray code