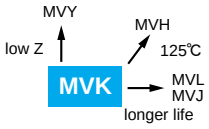
SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS

Standard, 105℃

Alchip® MVK Series

- Endurance : 105℃ 1000 to 2000 hours
- Suitable to fit for downsized equipment
- Solvent-proof type (see PRECAUTIONS AND GUIDELINES)



◆SPECIFICATIONS

Items	Characteristics
Category Temperature Range	−40 to +105℃
Rated Voltage Range	6.3 to 50Vdc
Capacitance Tolerance	±20% (M) (at 20℃, 120Hz)
Leakage Current	I=0.01CV or 3μA, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20℃ after 2 minutes)

Dissipation Factor (tanδ)

Rated voltage (Vdc)		6.3V	10V	16V	25V	35V	50V
tanδ (Max.)	D55 to F55	0.30	0.24	0.20	0.16	0.14	0.12
	H63 to J10	0.40	0.30	0.26	0.16	0.14	0.12

(at 20℃,120Hz)

Low Temperature Characteristics (Max. Impedance Ratio)

Rated voltage (Vdc)	6.3V	10V	16V	25V	35V	50V
Z(−25℃)/Z(+20℃)	4	3	2	2	2	2
Z(−40℃)/Z(+20℃)	10	8	6	4	3	3

(at 120Hz)

Endurance

The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for the specified period of time at 105℃.

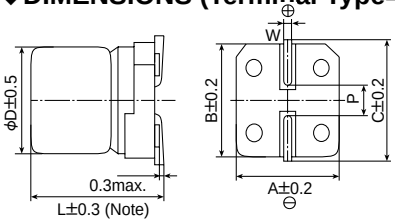
Case code	D55 to F55	H63 to J10
Time	1000hours	2000hours
Capacitance change	≦±30% of the initial value	≦±20% of the initial value
D.F. (tanδ)	≦300% of the initial specified value	≦200% of the initial specified value
Leakage current	≦The initial specified value	≦The initial specified value

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for the specified time at 105℃ without voltage applied.

Case code	D55 to F55	H63 to J10
Time	500hours	1000hours
Capacitance change	≦±25% of the initial value	≦±20% of the initial value
D.F. (tanδ)	≦200% of the initial specified value	≦200% of the initial specified value
Leakage current	≦The initial specified value	≦The initial specified value

◆DIMENSIONS (Terminal Type=VC) [mm]

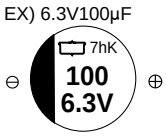


Case code	D	L	A	B	C	W	P
D55	4	5.2	4.3	4.3	5.1	0.5 to 0.8	1.0
E55	5	5.2	5.3	5.3	5.9	0.5 to 0.8	1.4
F55	6.3	5.2	6.6	6.6	7.2	0.5 to 0.8	1.9
H63	8	6.3	8.3	8.3	9.0	0.5 to 0.8	2.3
H10	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1
J10	10	10.0	10.3	10.3	11.0	0.7 to 1.1	4.5

Note : L±0.5 for φ8×6 (H63), φ8×10 (H10), and φ10×10 (J10) .

◆MARKING

EX) 6.3V100μF



◆PART NUMBERING SYSTEM

MVK 50 VC R47 M D55

- MVK : Series name
- 50 : Rated voltage in volts
- VC : Terminal type (VC)
- R47 : Nominal cap code
- M : Cap tolerance (±20%)
- D55 : Case code

Capacitance	Code
0.1μF	R1
0.47μF	R47
1.0μF	1
4.7μF	4R7
10μF	10
100μF	100
1000μF	1000

◆STANDARD RATINGS

μF \ Vdc	6.3		10		16		25		35		50	
0.1											D55	1.3
0.22											D55	2.6
0.33											D55	3.2
0.47											D55	3.8
1.0											D55	5.6
2.2											D55	10
3.3											D55	14
4.7									D55	15	E55	19
10					D55	16	→		E55	25	F55	29
22	D55	21	→		E55	30	→		F55	40	H63	70
33	→		E55	34	→		F55	45	H63	80	H10	140
47	E55	36	→		F55	48	H63	80	→		H10	170
100	F55	56	H63	90	→		H10	180	→		J10	310
220	→		H10	180	→		→		J10	375		
330	H10	290	→		→		J10	450				
470	→		→		J10	460						
1000	J10	410										

Case code

Rated ripple current (mArms) at 105℃, 120Hz

Note : → Use next higher voltage part.