

Surface Mount Aluminum Electrolytic

CX [Ultra Low Impedance and Long Life]

105°C 3000 ~ 5000 Hours, Ultra Low Impedance Long Life



FEATURE

105°C 3,000~5,000 hours, low profile vertical chip, ultra low impedance

Applications: AV(TV,Video, Audio), Monitor/Computer, OA/HA/Communication, SMPS

MULTIPLIER FOR RIPPLE CURRENT

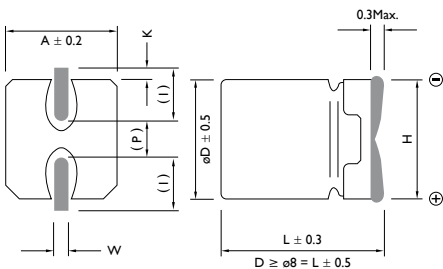
Frequency Coefficient

FREQUENCY (Hz)	120	1K	10K	100K
COEFFICIENT	0.70	0.80	0.90	1.00

ELECTRICAL CHARACTERISTICS

Operation Temperature Range	-40 ~ +105°C																					
Rated Voltage Range	6.3 ~ 50VDC																					
Rated Capacitance Range	1 ~ 1000μF																					
Capacitance Tolerance	±20% at 120Hz, 20°C																					
Leakage Current (Max. 20°C)	$I \leq 0.01 CV$ or $3\mu A$ (After Rated Voltage Applied for 2 Minutes) I = Leakage Current (μA), C = Nominal Capacitance (μF), V = Rated Voltage (V)																					
Dissipation Factor (Max.) (tanδ) (20°C, 120Hz)	Shown in the table of standard rating																					
Low Temperature Stability	Impedance Ratio (Max.) <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>WV (V) :</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>Z-25°C/Z+20°C :</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C/Z+20°C :</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	WV (V) :	6.3	10	16	25	35	50	Z-25°C/Z+20°C :	2	2	2	2	2	2	Z-40°C/Z+20°C :	3	3	3	3	3	3
WV (V) :	6.3	10	16	25	35	50																
Z-25°C/Z+20°C :	2	2	2	2	2	2																
Z-40°C/Z+20°C :	3	3	3	3	3	3																
Endurance	After the rated voltage has been applied at 155°C for 3000~5000 hours, the capacitors shall meet the following requirements. (a) Capacitance Change: Within ±30% of Initial Value (b) Dissipation Factor: Not Exceeding 200% of the Specified Value (c) Leakage Current: Initial Specified Value or Less <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Dø :</th> <th>4 × 5.4~8 × 6.5ø</th> <th>≥8 × 10.5~10 × 10.5ø</th> </tr> </thead> <tbody> <tr> <td>Load Life :</td> <td>3000hrs</td> <td>5000hrs</td> </tr> </tbody> </table>	Dø :	4 × 5.4~8 × 6.5ø	≥8 × 10.5~10 × 10.5ø	Load Life :	3000hrs	5000hrs															
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Load Life :	3000hrs	5000hrs																				
Shelf Life	After having been placed at 105°C without voltage applied for 1000 hours, the capacitors shall meet the same requirements as Endurance.																					

DIMENSIONS



() Reference Size

Unit: mm

Dø	L	A	H	I	W	P	K
4.0	5.4	4.3	5.5 Max.	1.8	0.65 ± 0.1	1.0 ± 0.2	0.35 ^{+0.15} _{-0.20}
5.0	5.4	5.3	6.5 Max.	2.2	0.65 ± 0.1	1.5 ± 0.2	0.35 ^{+0.15} _{-0.20}
6.3	5.4	6.6	7.8 Max.	2.6	0.65 ± 0.1	1.8 ± 0.2	0.35 ^{+0.15} _{-0.20}
6.3	7.7	6.6	7.8 Max.	2.6	0.65 ± 0.1	1.8 ± 0.2	0.35 ^{+0.15} _{-0.20}
8.0	6.5	8.3	9.5 Max.	3.4	0.65 ± 0.1	2.2 ± 0.2	0.35 ^{+0.15} _{-0.20}
8.0	10.5	8.3	10.0 Max.	3.4	0.90 ± 0.2	3.1 ± 0.2	0.70 ± 0.20
10.0	10.5	10.3	12.0 Max.	3.5	0.90 ± 0.2	4.6 ± 0.2	0.70 ± 0.20



CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μ F)	RATED VOLTAGE WV (SURGE VOLTAGE WV)											
	6.3 (8)				10 (13)				16 (20)			
	SIZE	RIPPLE CURRENT	DISSIPATION FACTOR	ESR	SIZE	RIPPLE CURRENT	DISSIPATION FACTOR	ESR	SIZE	RIPPLE CURRENT	DISSIPATION FACTOR	ESR
22	4 x 5.4	90	0.26	1.93	4 x 5.4	90	0.19	1.93	5 x 5.4	160	0.16	1.00
33	4 x 5.4	90	0.26	1.93	5 x 5.4	160	0.19	1.00	6.3 x 5.4	240	0.16	0.52
47	5 x 5.4	160	0.26	1.00	6.3 x 5.4	190	0.19	0.52	6.3 x 5.4	240	0.16	0.52
100	6.3 x 5.4	240	0.26	0.52	6.3 x 5.4	190	0.19	0.52	6.3 x 7.7	280	0.16	0.34
150	8 x 6.5	240	0.26	0.30	6.3 x 7.7	240	0.19	0.34	8 x 10.5	370	0.16	0.22
220	8 x 6.5	240	0.26	0.30	8 x 10.5	600	0.19	0.16	8 x 10.5	370	0.16	0.22
330	8 x 10.5	600	0.26	0.16	8 x 10.5	600	0.19	0.16	8 x 10.5	600	0.16	0.16
470	8 x 10.5	600	0.26	0.16	10 x 10.5	850	0.19	0.12	10 x 10.5	850	0.16	0.12
680	10 x 10.5	850	0.26	0.12	10 x 10.5	850	0.19	0.12				
1000	10 x 10.5	850	0.26	0.12								

Note: 1. Ripple Current: (mA/rms) 105°C, 100KHz

2. Dissipation Factor: 20°C, 120Hz

3. ESR: 100KHz / 20°C (Ω Max.)



CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μ F)	RATED VOLTAGE WV (SURGE VOLTAGE WV)											
	25 (32)				35 (44)				50 (63)			
	SIZE	RIPPLE CURRENT	DISSIPATION FACTOR	ESR	SIZE	RIPPLE CURRENT	DISSIPATION FACTOR	ESR	SIZE	RIPPLE CURRENT	DISSIPATION FACTOR	ESR
1.0									4 x 5.4	60	0.12	5.00
2.2									4 x 5.4	60	0.12	5.00
3.3									4 x 5.4	60	0.12	5.00
4.7					4 x 5.4	90	0.12	1.93	5 x 5.4	95	0.12	4.00
10	4 x 5.4	90	0.14	1.93	5 x 5.4	160	0.12	1.00	6.3 x 5.4	140	0.12	2.60
22	5 x 5.4	160	0.14	1.00	5 x 5.4	160	0.12	1.00	8 x 6.5	230	0.12	1.30
33	6.3 x 5.4	240	0.14	0.52	6.3 x 5.4	240	0.12	0.52	8 x 10.5	350	0.12	0.50
47	6.3 x 5.4	240	0.14	0.52	6.3 x 7.7	280	0.12	0.34	10 x 10.5	670	0.12	0.34
68	6.3 x 7.7	280	0.14	0.34	6.3 x 7.7	280	0.12	0.34	10 x 10.5	670	0.12	0.34
100	8 x 6.5	300	0.14	0.26	8 x 10.5	600	0.12	0.16	10 x 10.5	670	0.12	0.34
150	8 x 10.5	600	0.14	0.16	10 x 10.5	850	0.12	0.12				
220	8 x 10.5	600	0.14	0.16	10 x 10.5	850	0.12	0.12				
330	10 x 10.5	850	0.14	0.12								

Note: 1. Ripple Current: (mA/rms) 105°C, 100KHz

2. Dissipation Factor: 20°C, 120Hz

3. ESR: 100KHz / 20°C (Ω Max.)