

Features

- Extremely low and stable leakage current characteristics
- Close capacitance tolerance $\pm 20\%$ ($\pm 10\%$ on requested)

Specifications

Item	Performance Characteristics																
Operating Temperature Range	-40 to +105°C																
Rated voltage Range	160 to 400 VDC																
Capacitance Range	0.1 to 1000 μ F																
Capacitance Tolerance	$\pm 20\%$ [120Hz +20 °C]																
Leakage Current[+20°C.max.]	$1 \leq 0.002 CV$ or $0.4(\mu A)$ After 3minutes(90sec $\leq 10\mu F$.) whichever is greater measured with rated working voltage applied																
Dissipation Factor[tan δ]	<table border="1"> <tr> <td>Working Voltage[VDC]</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> </tr> <tr> <td>D.F.{%}max</td> <td>17</td> <td>16</td> <td>14</td> <td>12</td> <td>10</td> <td>*8</td> </tr> </table> *8 for $c \leq 1\mu F$ [+20°C. At 120 Hz]	Working Voltage[VDC]	10	16	25	35	50	63	D.F.{%}max	17	16	14	12	10	*8		
Working Voltage[VDC]	10	16	25	35	50	63											
D.F.{%}max	17	16	14	12	10	*8											
Low Temperature Characteristics [120Hz]	Impedance ratio max <table border="1"> <tr> <td>Working Voltage[VDC]</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>4</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> </table>	Working Voltage[VDC]	6.3	10	16	25	35	50	63	Z-40°C/Z+20°C	4	3	3	2	2	2	2
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Z-40°C/Z+20°C	4	3	3	2	2	2	2										
Load Life	Test conditions Duration time :1000Hrs Ambient temperature: +105 °C Applied voltage: Rated DC working voltage After test requirements at +20 °C Capacitance change : $\leq \pm 20\%$ of the initial measured value Dissipation factor: $\leq 150\%$ of the initial specified value Leakage current: \leq The initial specified value																
Shelf Life	Test conditions Duration time :500 Hrs Ambient temperature :+105 °C Applied voltage: None After test requirements at +20 °C: Some limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.																

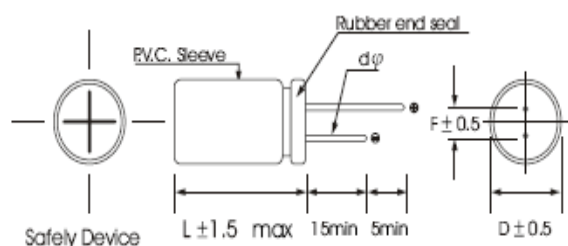
Multiplier for Ripple Current vs. Frequency

CAP(μ F)\Hz		50(60)	120	400	1k	10k	50k-100k
Multiplier	CAP ≤ 10	0.8	1	1.30	1.45	1.65	1.70
	10 < CAP ≤ 100	0.8	1	1.23	1.36	1.48	1.53
	100 < CAP ≤ 1000	0.8	1	1.16	1.25	1.35	1.38
		0.8	1	1.11	1.18	1.25	1.28

Multiplier for ripple current vs. Temperature

Temperature°C	45	60	70	85	95	105
Multiplier	1.50	1.30	1.45	1.30	1.15	1.00

Diagram of Dimensions:(Unit;mm)



Dϕ	4	5	6.3	8
F	1.5	2.0	2.5	3.5
dϕ	0.45	0.5		

Case Size

ΦDXL(mm)

W.V. uF	6.3	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)
0.47	→				→	5×11	5×11
1	→				→	5×11	5×11
2.2	→				→	5×11	5×11
3.3	→				→	5×11	5×11
4.7	→				→	5×11	5×11
10	→	→	5×11	5×11	5×11	5×11	5×11
22	→	→	5×11	5×11	5×11	6×11	6×11
33	→	→	5×11	5×11	6×11	6×11	8×11
47	→	→	5×11	5×11	6×11	6×11	8×11
100	5×11	5×11	5×11	8×11	6×11	8×11	10×20
220	6×11	6×11	6×11	8×14	10×17	10×15	13×21
330	8×11	8×11	8×11	10×17	10×15	10×30	13×25
470	6×11 8×11	6×11 8×11	8×11	10×20	10×30	13×25	16×25.5
1000	10×17	10×20	10×20	10×17	13×30	16×31.5	16×41
1500	10×17	10×20	-	-	-	-	-
2200	13×21	13×25	13×30	13×40	16×35	18×41	-
3300	13×30	13×35	13×40	16×35	-	-	-
4700	16×25.5	13×21	16×35	18×41	-	-	-

Maximum Ripple Current

(mA. rms, 120Hz at 105°C)

W.V. uF	6.3	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)
0.47	→				→	15	16
1	→				→	25	27
2.2	→				→	3	38
3.3	→				→	45	48
4.7	→				→	58	62
10	→	→	37	56	70	100	105
22	→	→	56	70	120	135	150
33	→	→	58	130	150	230	265
47	→	→	120	190	230	250	351
100	185	225	260	300	390	475	630
220	300	390	470	550	740	810	870
330	390	445	555	740	935	990	1100
470	435	555	585	1040	1050	1490	1430
1000	625	1040	1180	1430	1650	1880	2110
1500	962	1365	-	-	-	-	-
2200	1300	1690	1950	2390	2550	2620	
3300	1425	1870	2110	2550	-	-	-
4700	1880	2100	2550	2620	-	-	-

