

FEATURES

Low ESR

SPECIFICATION

Item	Characteristic										
Operation Temperature Range	-40 to + 105°C										
Rated Working Voltage	6.3 - 100 V.DC										
Capacitance Tolerance (120Hz 20°C)	±20% (120Hz)										
Leakage Current (120Hz 20°C)	$I \leq 0.01CV$ After 2 minutes	I : Leakage Current(µA) C : Rated Capacitance(µF) V : Rated Voltage(V)									
Surge Voltage (120Hz 20°C)	WV	6.3 10 16 25 35 50 63 100									
	SV	8 13 20 32 44 63 79 125									
Dissipation Factor (120Hz 20°C) (tanδ)	WV	6.3 10 16 25 35 50 63 100									
	tanδ	0.22 0.19 0.16 0.14 0.12 0.10 0.09 0.08									
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">Load Life</div> <div style="margin-top: 10px;">Shelf Life</div> </div>	After life test at conditions stated in the table below, the capacitors shall meet the following requirement.										
	Capacitance Change	≤ ±25% of initial value	<table border="1"> <thead> <tr> <th>Case Dia</th> <th>Life Time (hrs)</th> </tr> </thead> <tbody> <tr> <td>Ø D=8</td> <td>1000</td> </tr> <tr> <td>Ø D=10</td> <td>2000</td> </tr> <tr> <td>Ø D=13</td> <td>3000</td> </tr> </tbody> </table>	Case Dia	Life Time (hrs)	Ø D=8	1000	Ø D=10	2000	Ø D=13	3000
	Case Dia	Life Time (hrs)									
	Ø D=8	1000									
Ø D=10	2000										
Ø D=13	3000										
Dissipation Factor	≤ 200% of initial specified value										
Leakage Current	≤ initial specified value										
After leaving capacitors under no load of 105°C for 1000 hours and applying voltage, they meet the specified value for load life characteristics listed above.											

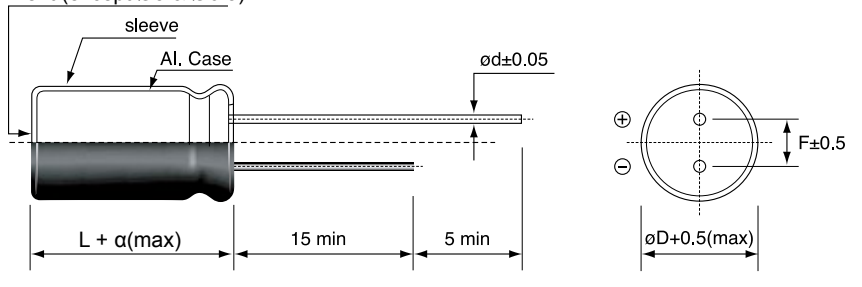
RIPPLE CURRENT FOR FREQUENCY MULTIPLIERS

Frequency (Hz)	60(50)	120	1K	10K	100K
CAP(µF)	Multiplier				
6.8-33	0.45	0.55	0.75	0.90	1.00
69-330	0.60	0.70	0.85	0.95	1.00
390-1000	0.65	0.75	0.90	0.98	1.00
1200-18000	0.75	0.80	0.95	1.00	1.00

DIMENSIONS (mm)

D	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d	0.5	0.5	0.5	0.6	0.6	0.8	0.8
α	1.5		2.0				

Vent (except Ø5 & Ø6.3)



CASE SIZE & MAX RIPPLE CURRENT

Size \varnothing DXL(mm), Ripple Current (mA r.m.s./105°C, 100kHz)

Rated Voltage 6.3V / 0J			
Cap (μ F)	Case Size (mm)	Ripple Current (mA)	Impedance 20°C 100kHz (Ω Max.)
39	4x7	130	0.85
68	5x7	210	0.43
150	5x11	250	0.30
	6.3x7	300	0.23
220	8x7	380	0.15
330	6.3x11	405	0.130
	8x9	380	0.150
560	8x11	760	0.072
680	6.3x11	740	0.065
820	8x14	995	0.056
	8x20	1250	0.041
1000	8x11	780	0.060
	8x12	840	0.055
	8x14	1000	0.050
	8x20	1200	0.035
	10x12	1030	0.053
1200	8x20	1250	0.041
	10x16	1430	0.038
1500	8x20	1450	0.020
	10x12 / 10x15	1030 / 1250	0.053 / 0.045
	10x20	2000	0.020
2200	10x20	1750	0.025
	10x25	2250	0.017
3300	10x25	2250	0.017
	13x21	2360	0.021
3900	13x25	2770	0.018
4700	13x30	2650	0.018
5600	13x35	3400	0.015
	16x21	3140	0.018
6800	16x26	3460	0.016

Rated Voltage 10V / 1A			
Cap (μ F)	Case Size (mm)	Ripple Current (mA)	Impedance 20°C 100kHz (Ω Max.)
27	4x7	130	0.89
56	5x7	210	0.44
100	5x11	250	0.30
120	6.3x7	300	0.23
180	8x11	380	0.15
220	6.3x11	405	0.13
470	8x11	720	0.076
680	8x14	950	0.060
	10x12	1030	0.053
1000	8x14	940	0.042
	8x20	1250	0.041
	10x16	1430	0.038
1200	10x20	1820	0.023
1500	10x25	2150	0.022
2200	13x21	2360	0.021
3300	10x30	2360	0.018
	13x25	2770	
3900	13x30	3290	0.016
	16x21	3140	0.018
4700	13x35	3400	0.015
5600	16x26	3460	0.016

Rated Voltage 16V / 1C			
Cap (µF)	Case Size (mm)	Ripple Current (mA)	Impedance 20°C 100kHz (Ω Max.)
18	4x7	130	0.92
33	5x7	210	0.45
56	5x11	250	0.30
68	6.3x7	300	0.24
100	6x11	250	0.30
120	6.3x11	405	0.13
	8x11	380	0.15
220	6.3x11	340	0.220
330	8x12	760	0.072
470	8x12 / 8x14	760 / 995	0.072 / 0.056
	10x12	1020	0.045
680	8x20	1350	0.025
	10x16	1430	0.038
1000	8x20	1400	0.028
	10x20	1820	0.023
1200	10x25	2150	0.022
1500	10x20	2250	0.022
	10x25	2550	0.019
	12x21	2360	0.021
	13x21	2360	0.021
2200	10x25	2150	0.021
	13x25	2770	0.019
3300	13x35	3400	0.015
3900	16x26	3460	0.016
6800	16x32		

Rated voltage 25V / 1E			
Cap (µF)	Case Size (mm)	Ripple Current (mA)	Impedance 20°C 100kHz (Ω Max.)
15	4x7	130	0.94
27	5x7	210	0.46
47	5x11	250	0.30
56	6.3x7	300	0.24
100	6.3x11	405	0.13
	8x7	380	0.15
220	8x12	760	0.072
330	8x16	995	0.056
	10x12	1030	0.053
470	8x20	1250	0.041
	10x16	1430	0.038
680	10x20	1820	0.023
820	10x25	2150	0.022
1000	13x21	2360	0.021
1500	13x25	2770	0.018
1800	13x31	3290	0.016
	16x21	3140	0.018
2200	13x35	3400	0.015
2700	16x26	3460	0.016

Rated Voltage 35V / 1V			
Cap (µF)	Case Size (mm)	Ripple Current (mA)	Impedance 20°C 100kHz (Ω Max.)
10	4x7	130	0.96
18	5x7	210	0.47
33	5x11	250	0.30
39	6.3x7	300	0.25
56	8x7	380	0.16
	6.3x11	405	0.13
150	8x11	760	0.072
220	8x16	995	0.056
	10x12	1030	0.053
270	8x20	1250	0.041
330	10x16	1430	0.038
470	10x20	1820	0.023
560	10x23	2150	0.022
680	10x25 / 13x21	1570 / 2360	0.030 / 0.021
1000	13x25	2770	0.018
1200	13x31	3290	0.016
	16x21	3140	0.018
1500	13x35	3400	0.015
1800	16x26	3460	0.016

Rated Voltage 50V / 1H			
Cap (μF)	Case Size (mm)	Ripple Current (mA)	Impedance 20°C 100kHz (Ω Max.)
5.6	4x7	130	1.0
10	5x7	210	0.50
22	5x11	238	0.34
	6.3x7	300	0.26
33	8x11	380	0.17
56	6.3x11	385	0.14
100	8x11	724	0.074
120	8x16	950	0.061
150	10x12	979	0.061
180	8x20	1190	0.046
220	10x16	1370	0.042
270	10x20	1580	0.030
330	10x25	1870	0.028
470	13x21	2050	0.027
560	13x26	2410	0.023
680	13x31	2860	0.021
820	13x35	2960	0.019
	16x21	2730	0.023
1000	16x26	3010	0.021

Rated Voltage 63V / 1J			
Cap (μF)	Case Size (mm)	Ripple Current (mA)	Impedance 20°C 100kHz (Ω Max.)
33	6.3x11	265	0.35
56	8x11	500	0.22
82	8x14	665	0.16
	10x12	685	0.15
120	8x20	820	0.12
	10x16	945	0.11
180	10x20	1100	0.080
	13x16	1135	0.082
220	10x25	1300	0.073
270	13x21	1495	0.060
330	13x25	1850	0.043
470	13x30	2250	0.039
	16x21	1990	0.045
560	13x35	2450	0.033
	16x26	2550	0.032
680	13x41	2780	0.029
	18x20	2450	0.038
820	16x32	2810	0.026
	18x25	2780	0.031
1000	16x36	2835	0.021
	18x32	3270	0.025
1200	16x42	3340	0.019
	18x36	3310	0.020
1500	18x42	3420	0.018

Rated Voltage 100V / 2A			
Cap (μF)	Case Size (mm)	Ripple Current (mA)	Impedance 20°C 100kHz (Ω Max.)
6.8	5x11	125	1.40
15	6.3x11	205	0.57
27	8x11	355	0.36
39	8x14	450	0.25
47	10x12	450	0.24
56	8x20	565	0.19
68	10x16	580	0.18
82	10x20	750	0.13
	13x16	735	
100	10x25	880	0.12
120	13x21	1045	0.094
180	13x25	1195	0.071
220	13x30	1410	0.063
	16x21	1295	0.071
270	13x35	1560	0.052
	16x26	1600	0.053
330	13x40	1700	0.046
390	16x32	1750	0.041
470	16x36	1890	0.033
	18x32	1775	0.039
560	16x42	2080	0.030
680	18x42	2570	0.028