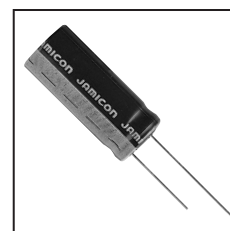


- High temperature 105°C, 4000~10000hours
- Recommended Applications : Applicable for SMPS, Adaptor, Charger, Monitor/Computer
- Corresponding product to RoHS

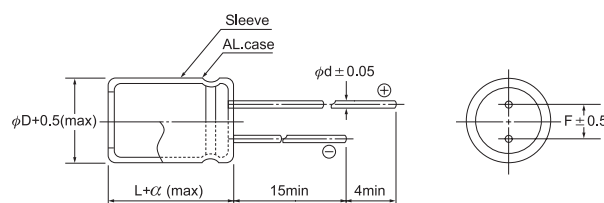


## ● SPECIFICATION

Item	Characteristic										
Operation Temperature Range	-40 ~ +105°C										
Rated Working Voltage	6.3 ~ 100VDC										
Capacitance Tolerance (120Hz 20°C)	±20% (M)										
Leakage Current (20°C)	$I \leq 0.01CV$ or $3(\mu A)$ Whichever is greater after 2 minutes I : Leakage Current ( $\mu A$ ) C : Rated Capacitance ( $\mu F$ ) V : Working Voltage (V)										
Surge Voltage (20°C)	W.V.	6.3	10	16	25	35	50	63	100		
	S.V.	8	13	20	32	44	63	79	125		
Dissipation Factor (tan $\delta$ ) (120Hz 20°C)	Add 0.02 per 1000 $\mu F$ for more than 1000 $\mu F$										
	W.V.	6.3	10	16	25	35	50	63	100		
	tan $\delta$	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08		
Low Temperature Stability	Impedance ratio at 120Hz										
	Rated Voltage (V)	6.3	10	16	25	35	50	63	100		
	-25°C / +20°C	4	3	2	2	2	2	2	2	2	
	-40°C / +20°C	8	6	4	3	3	3	3	3	3	
Load Life	After 4000~10000 hours application of W.V. at +105°C, the capacitor shall meet the following limits. (DC + ripple peak voltage $\leq$ rate working voltage)										
	D $\phi$	5~6.3 $\phi$			8~10 $\phi$			12.5~18 $\phi$			
	6.3~10(V)	4000hrs			6000hrs			8000hrs			
	16~100(V)	5000hrs			7000hrs			10000hrs			
	Capacitance Change	$\leq \pm 25\%$ of initial value									
	Dissipation Factor	$\leq 200\%$ of initial specified value									
Leakage current	$\leq$ initial specified value										
Shelf Life	At +105°C no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. (with voltage treatment)										

## ● DIMENSIONS (mm)

$\phi D$	5	6.3	8	10	12.5	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d	0.5	0.5	0.6	0.6	0.6	0.8	0.8
$\alpha$	1.5	1.5	1.5	1.5	2.0	2.0	2.0



## ● RIPPLE CURRENT COEFFICIENTS

Temperature(°C)	$\leq 50$	70	85	105
Coefficient	1.90	1.75	1.40	1.00

Frequency(Hz)	120	1k	10k	100k
15~180 $\mu F$	0.40	0.75	0.90	1.00
220~560 $\mu F$	0.50	0.85	0.94	1.00
680~1800 $\mu F$	0.60	0.87	0.95	1.00
2200~3900 $\mu F$	0.75	0.90	0.95	1.00
4700 $\mu F$ Higher	0.85	0.95	0.98	1.00

● CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)  
 Max impedance : Ω 20°C 100kHz  
 Max ripple current : mA(rms) 105°C 100kHz

μF	V(DC) Item	6.3			10			16		
		DxL	IMP.	R.C.	DxL	IMP.	R.C.	DxL	IMP.	R.C.
56								5x11	0.580	210
100					5x11	0.580	210			
120								6.3x11	0.220	340
150		5x11	0.580	210						
220					6.3x11	0.220	340			
330		6.3x11	0.220	340				8x11	0.130	640
470					8x11	0.130	640	8x15	0.087	840
								10x12.5	0.080	865
680		8x11	0.130	640	8x15	0.087	840	8x20	0.069	1050
					10x12.5	0.080	865	10x15	0.060	1210
820		10x12.5	0.080	865						
1000		8x15	0.087	840	8x20	0.069	1050	10x20	0.046	1400
					10x15	0.060	1210	12.5x16	0.049	1450
1200		8x20	0.069	1050	10x20	0.046	1400	10x25	0.042	1650
		10x15	0.060	1210						
1500		10x20	0.046	1400	10x25	0.042	1650	10x30	0.031	1910
					12.5x16	0.049	1450	12.5x20	0.035	1900
1800		12.5x16	0.049	1450						
2200		10x25	0.042	1650	10x30	0.031	1910	12.5x25	0.027	2230
					12.5x20	0.035	1900			
2700		10x30	0.031	1910				12.5x30	0.024	2650
								16x20	0.027	2530
3300		12.5x20	0.035	1900	12.5x25	0.027	2230	12.5x35	0.020	2880
		12.5x25	0.027	2230	12.5x30	0.024	2650	12.5x40	0.017	3350
3900					16x20	0.027	2530	16x25	0.021	2930
								18x20	0.026	2860
4700		12.5x30	0.024	2650	12.5x35	0.020	2880	16x32	0.017	3450
								18x25	0.019	3140
5600		12.5x35	0.020	2880	12.5x40	0.017	3350	16x36	0.015	3610
		16x20	0.027	2530	16x25	0.021	2930	18x32	0.015	4170
					18x20	0.026	2860			
6800		12.5x40	0.017	3350	16x32	0.017	3450	16x40	0.013	4080
		16x25	0.021	2930	18x25	0.019	3140			
		18x20	0.026	2860						
8200		16x32	0.017	3450	16x36	0.015	3610	18x36	0.014	4220
					18x32	0.015	4170			

RADIAL TYPE

● CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)  
 Max impedance : Ω 20°C 100kHz  
 Max ripple current : mA(rms) 105°C 100kHz

μF	V(DC) Item	25			35			50		
		DxL	IMP.	R.C.	DxL	IMP.	R.C.	DxL	IMP.	R.C.
22								5x11	0.700	180
33					5x11	0.580	210	6.3x11	0.490	245
47		5x11	0.580	210				6.3x11	0.520	300
56					6.3x11	0.220	340	6.3x11	0.300	295
100		6.3x11	0.220	340				8x11	0.170	555
120								8x15	0.120	730
150					8x11	0.130	640	10x12.5	0.120	760
180								8x20	0.091	910
220		8x11	0.130	640	8x15	0.087	840	10x16	0.084	1050
					10x12.5	0.080	865			
270					8x20	0.069	1050	10x20	0.060	1220
								12.5x16	0.061	1260
330		8x15	0.087	840	10x15	0.060	1210	10x25	0.055	1440
		10x12.5	0.080	865						
470		8x20	0.069	1050	10x20	0.046	1400	10x30	0.043	1690
		10x15	0.060	1210	12.5x16	0.049	1450	12.5x20	0.045	1660
560								16x16	0.055	1690
					10x25	0.042	1650	12.5x25	0.034	1950
680								18x16	0.054	1930
		10x20	0.046	1400	10x30	0.031	1910	12.5x30	0.030	2310
820		12.5x16	0.049	1450	12.5x20	0.035	1900			
		10x25	0.042	1650				12.5x35	0.025	2510
1000								16x20	0.034	2210
		10x30	0.031	1910	12.5x25	0.027	2230	12.5x40	0.021	2920
1200		12.5x20	0.035	1900				16x25	0.025	2555
								18x20	0.036	2490
1500					12.5x30	0.024	2650	16x32	0.022	3010
					16x20	0.027	2530	18x25	0.026	2740
1800		12.5x25	0.027	2230	12.5x35	0.020	2880	16x36	0.019	3150
		12.5x30	0.024	2650	12.5x40	0.017	3350	16x40	0.016	3710
2200		16x20	0.027	2530	16x25	0.021	2930	18x32	0.021	3635
					18x20	0.026	2860			
2700		12.5x35	0.020	2880	16x32	0.017	3450	18x36	0.017	3680
		18x20	0.026	2860	18x25	0.019	3140			
3300		12.5x40	0.017	3350	16x36	0.015	3610	18x40	0.014	3800
		16x25	0.021	2930	18x32	0.015	4170			
3900		16x32	0.017	3450	16x40	0.013	4080			
		18x25	0.019	3140	18x36	0.014	4220			
4700		16x36	0.015	3610	18x40	0.012	4280			
		18x32	0.015	4170						
5600		16x40	0.013	4080						
		18x36	0.014	4220						
		18x40	0.012	4280						

RADIAL TYPE

● CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)  
 Max impedance : Ω 20°C 100kHz  
 Max ripple current : mA(rms) 105°C 100kHz

μF	V(DC) Item	63			100		
		DxL	IMP.	R.C.	DxL	IMP.	R.C.
15		5x11	2.300	55	6.3x11	1.200	115
27					8x12	0.630	232
33		6.3x11	1.200	115			
39					8x15	0.450	300
47					10x12.5	0.430	288
56		8x12	0.630	232	8x20	0.330	362
68					10x16	0.310	357
82		8x15	0.450	300	10x20	0.210	466
		10x12.5	0.430	288	12.5x16	0.230	466
100					10x25	0.200	531
120		8x20	0.330	362	10x30	0.150	663
		10x16	0.310	357	12.5x20	0.160	690
150					16x16	0.140	795
180		10x20	0.210	466	12.5x25	0.120	784
		12.5x16	0.230	466	18x16	0.120	920
220		10x25	0.200	531	12.5x30	0.100	905
					16x20	0.091	1040
270		10x30	0.150	663	12.5x35	0.083	1050
		12.5x20	0.160	690	16x25	0.073	1250
		16x16	0.140	795			
330		12.5x25	0.120	784	12.5x40	0.071	1180
		18x16	0.120	920	18x20	0.080	1240
390					16x32	0.054	1570
					18x25	0.057	1490
470		12.5x30	0.100	905	16x36	0.045	1790
		16x20	0.091	1040	18x32	0.047	1630
560		12.5x35	0.083	1050	16x40	0.040	2020
		16x25	0.073	1250			
680		12.5x40	0.071	1180	18x36	0.040	1790
		18x20	0.080	1240			
820		16x32	0.054	1570	18x40	0.036	2330
		18x25	0.057	1490			
1000		16x36	0.045	1790			
		18x32	0.047	1630			
1200		16x40	0.040	2020			

RADIAL TYPE