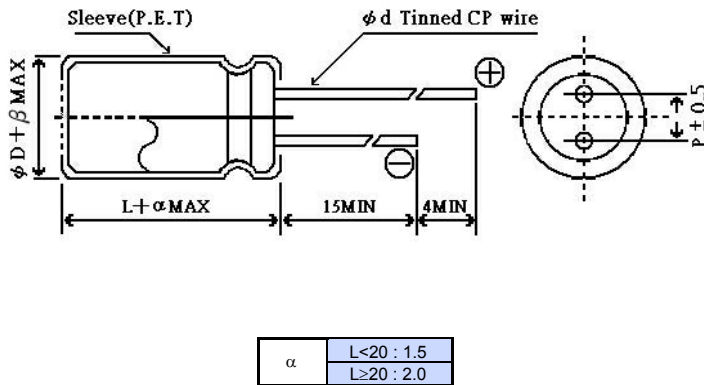


- High Reliability for Switching Power Supply**
- Lower impedance
 - Long Life

■ SPECIFICATIONS

Item	Performance Characteristics																	
Operating Temperature Range	-40~+105°C																	
Voltage Range	6.3~100V																	
Capacitance Range	27~8200 μF																	
Capacitance Tolerance	±20% at 120Hz, 20°C																	
Tan δ	For capacitance of more than 1000 μF, add 0.02 for every increase of 1000 μF At 120Hz, 20°C																	
	<table border="1"> <thead> <tr> <th>Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Tan δ (MAX.)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> </tr> </tbody> </table>	Rated voltage (V)	6.3	10	16	25	35	50	63	100	Tan δ (MAX.)	0.22	0.19	0.16	0.14	0.12	0.10	0.09
Rated voltage (V)	6.3	10	16	25	35	50	63	100										
Tan δ (MAX.)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08										
Leakage Current	Rated voltage (V)	6.3~100																
	Leakage Current	After 2 minutes' application of rated voltage, leakage current is less than 0.01CV or 3 μA.																
Stability at Low Temperature	At 120Hz																	
	Rated Voltage (V)	6.3 10 16 25 35 50 63 100																
	Z-25°C/Z+20°C	2 2 2 2 2 2 2 2																
Z-40°C/Z+20°C	3 3 3 3 3 3 3 3																	
Load Life	After an application of D.C. bias voltage plus the rated ripple current for φD≤6.3 : 5000 hours, φD≥8 : 6000 hours at 105°C, capacitors meet the characteristics requirements listed at right.	Capacitance Change	Within ±25% of initial value (6.3V, 10V : ±30%)															
		Tan δ	Not exceeding 200% of initial specified value															
		Leakage Current	Not exceeding Initial specified value															
Shelf Life	After storing capacitors under no load at 85°C for 1000 hours, they will meet the specified value for endurance characteristics listed above.																	

■ RADIAL LEAD TYPE



φD	5	6.3	8	10	12.5	16/18
P	2.0	2.5	3.5	5.0	5.0	7.5
φd	0.5	0.5	0.6	0.6	0.6	0.8
β	0.5	0.5	0.5	0.5	0.5	0.5

■ Allowable Ripple Current VS. Ambient Temperature

Ambient temp. (°C)	~+70	+85	+105
Coefficient	1.78	1.4	1.0

■ Frequency Coefficient of Allowable Ripple Current

V	Frequency				
	Cap. (μF)	120Hz	1KHz	10KHz	100KHz
6.3~35	27~1000	0.60	0.87	0.95	1.00
	1200~4700	0.75	0.90	0.95	1.00



High Reliability for Switching Power Supply

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STANDARD RATINGS

D×L (mm)

Cap(μF)	Code	W.V. S.V. Item	6.3V(0J)			10V(1A)			16V(1C)					
			8			13			20					
			Case size φD×L (mm)	Impedance (ΩMAX.) / 100KHz		Allowable ripple (mA. rms) 105°C, 100KHz	Case size φD×L (mm)	Impedance (ΩMAX.) / 100KHz		Allowable ripple (mA. rms) 105°C, 100KHz	Case size φD×L (mm)	Impedance (ΩMAX.) / 100KHz		Allowable ripple (mA. rms) 105°C, 100KHz
				20°C	-10°C			20°C	-10°C			20°C	-10°C	
100	101								5×11	0.24	0.80	330		
150	151							330						
220	221		5×11	0.24	0.8	330				6.3×11	0.11	0.35	500	
330	331						6.3×11	0.11	0.35	500				
470	471		6.3×11	0.11	0.35	500				8×11.5	0.062	0.19	900	
680	681						8×11.5	0.062	0.19	900				
820	821		8×11.5	0.062	0.19	900				10×12.5	0.045	0.14	1240	
1000	102						10×12.5	0.045	0.14	1240	8×20	0.033	0.11	1410
1200	122		10×12.5	0.045	0.14	1240					10×16	0.032	0.10	1650
1500	152		8×20	0.033	0.11	1410	8×20	0.033	0.11	1410	10×20	0.020	0.060	1960
1800	182		10×16	0.032	0.10	1650	10×16	0.032	0.10	1650	10×20	0.020	0.060	1960
2200	222		10×20	0.020	0.060	1960	10×20	0.020	0.060	1960	10×25	0.018	0.054	2250
2700	272		10×25	0.018	0.054	2250	10×25	0.018	0.056	2250	12.5×20	0.017	0.043	2480
3300	332		10×25	0.018	0.054	2250	12.5×20	0.017	0.043	2480	12.5×25	0.015	0.038	2900
3900	392		12.5×20	0.017	0.043	2480	12.5×25	0.015	0.038	2900	12.5×31.55	0.014	0.033	3450
4700	472		12.5×25	0.015	0.038	2900					16×25	0.013	0.035	3630
6800	682						16×25	0.013	0.035	3630				
8200	822		16×25	0.013	0.035	3630								

STANDARD RATINGS

D×L (mm)

Cap(μF)	Code	W.V. S.V. Item	25V(1E)			35V(1V)						
			32			44						
			Case size φD×L (mm)	Impedance (ΩMAX.) / 100KHz		Allowable ripple (mA. rms) 105°C, 100KHz	Case size φD×L (mm)	Impedance (ΩMAX.) / 100KHz		Allowable ripple (mA. rms) 105°C, 100KHz		
				20°C	-10°C			20°C	-10°C			
47	470							5×11	0.24	0.80	330	
68	680		5×11	0.24	0.80	330						
100	101							6.3×11	0.11	0.35	500	
150	151		5×11	0.24	0.35	330						
220	221							8×11.5	0.062	0.19	905	
330	331		8×11.5	0.062	0.19	900		10×12.5	0.045	0.14	1240	
390	391							8×20	0.033	0.11	1410	
470	471		10×12.5	0.045	0.14	1240		10×16	0.032	0.10	1650	
560	561		8×20	0.033	0.11	1410		10×20	0.020	0.060	1960	
680	681		8×20	0.033	0.11	1410		10×20	0.020	0.054	1960	
820	821		10×16	0.032	0.10	1650						
1000	102		10×20	0.020	0.060	1960						
1200	122							12.5×20	0.017	0.043	2480	
1500	152		12.5×20	0.017	0.043	2480		12.5×25	0.015	0.038	2900	
1800	182		12.5×25	0.015	0.038	2900						
2200	222							16×25	0.013	0.035	3630	
3300	332		16×25	0.013	0.035	3630						



High Reliability for Switching Power Supply

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STANDARD RATINGS

D×L (mm)

Cap(μF)	Code	W.V. S.V. Item	50V(1H)			63V(1C)			100V(1E)					
			Case size φD×L (mm)	Impedance (ΩMAX.) / 100KHz		Allowable ripple (mA. rms) 105°C, 100KHz	Case size φD×L (mm)	Impedance (ΩMAX.) / 100KHz		Allowable ripple (mA. rms) 105°C, 100KHz	Case size φD×L (mm)	Impedance (ΩMAX.) / 100KHz		Allowable ripple (mA. rms) 105°C, 100KHz
				63				79				125		
				20°C	-10°C			20°C	-10°C			20°C	-10°C	
8.2	8R2									5×11	1.40	5.6	163	
18	180					5×11	0.88	3.5	173	6.3×11	0.57	2.3	267	
27	270		5×11	0.34	1.18	238								
33	330									8×11.5	0.36	1.4	462	
47	470					6.3×11	0.35	1.4	278	8×15	0.25	1.0	585	
56	560		6.3×11	0.14	0.50	385				10×12.5	0.23	0.96	624	
68	680									8×20	0.19	0.76	735	
82	820		8×11.5	0.074	0.22	525				10×16	0.17	0.72	780	
100	101		8×11.5	0.074	0.22	724	8×15	0.16	0.64	688	10×20	0.12	0.52	1040
										12.5×16	0.13	0.43	975	
120	121		8×15	0.061	0.18	950	10×12.5	0.15	0.60	725	10×20	0.11	0.47	1170
150	151		10×12.5	0.061	0.18	979	8×20	0.12	0.48	861	12.5×20	0.085	0.31	1430
180	181		8×20	0.046	0.14	1190	10×16	0.11	0.44	998				
220	221		10×16	0.042	0.12	1370					12.5×25	0.060	0.23	1620
270	271		10×20	0.030	0.090	1580	10×20	0.078	0.31	1200	12.5×31	0.051	0.21	1950
							12.5×16	0.082	0.27	1200	16×20	0.058	0.21	1750
330	331		10×20	0.028	0.085	1870	10×20	0.069	0.28	1410	12.5×35.5	0.043	0.17	2140
390	391						12.5×20	0.060	0.19	1570	12.5×40	0.036	0.15	2340
											16×25	0.044	0.16	2210
											18×20	0.054	0.18	1950
470	471		12.5×20	0.027	0.068	2050	12.5×25	0.043	0.14	1990	16×32.5	0.033	0.12	2400
											18×25	0.038	0.13	2270
560	561		12.5×25	0.023	0.059	2410	12.5×31.5	0.035	0.13	2410	16×35.5	0.029	0.10	2600
							16×20	0.043	0.14	2100	18×31.5	0.031	0.11	2470
680	681		12.5×31.5	0.021	0.052	2860	12.5×35.5	0.033	0.11	2620	16×40	0.027	0.090	2860
											18×35.5	0.027	0.084	2860
820	821		12.5×35.5	0.019	0.051	2960	12.5×40	0.027	0.090	2940	18×40	0.026	0.076	3510
			16×20	0.023	0.059	2730	16×25	0.032	0.096	2730				
							18×20	0.038	0.10	2500				
1000	102		16×25	0.021	0.056	3010								
1200	122						16×31.5	0.024	0.068	2990				
							18×25	0.031	0.084	2800				
1500	152						16×35.5	0.021	0.057	3040				
							18×31.5	0.025	0.068	3300				
1800	182						16×40	0.019	0.057	3570				
							18×35.5	0.020	0.057	3570				
2200	222						18×40	0.018	0.049	3670				