

**TA** Low impedance · Long life Series

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

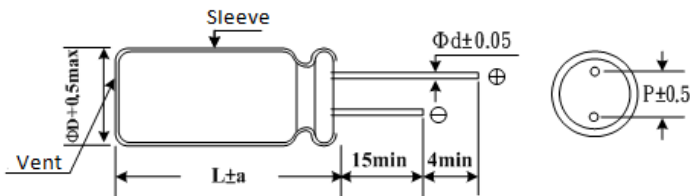
**TA**  
↑  
**SY** Long Life



**■ SPECIFICATIONS**

Item	Characteristics																																				
Category Temperature Range	-40 ~ +105°C																																				
Rated Voltage Range	6.3~100VDC																																				
Rated Capacitance Range	22 ~ 8200 µF																																				
Capacitance Tolerance	± 20 % (120Hz , 20°C)																																				
Leakage Current (20°C)	I=0.01CV or 3 µ A whichever is greater. (After rated voltage applied for 2 minutes) I : Max. leakage current (µ A), C : Nominal capacitance (µ F), V : Rated voltage (V)																																				
Dissipation Factor(MAX) (tan δ) (120Hz , 20°C)	<table border="1"> <tr> <td>WV</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>tan δ</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> </table> <p>When nominal capacitance is over 1000 µF, tan δ shall be added 0.02 to the listed value with increase of every 1000 µF.</p>	WV	6.3	10	16	25	35	50	63	100	tan δ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08																		
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Low Temperature Stability Impedance Ratio (MAX)	<table border="1"> <tr> <td>WV</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>Z((120HZ)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Z-25°C / Z+20°C</td> <td>4</td> <td>3</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>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	WV	6.3	10	16	25	35	50	63	100	Z((120HZ)									Z-25°C / Z+20°C	4	3	2	2	2	2	2	2	Z-40°C / Z+20°C	8	6	4	3	3	3	3	3
WV	6.3	10	16	25	35	50	63	100																													
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Z-25°C / Z+20°C	4	3	2	2	2	2	2	2																													
Z-40°C / Z+20°C	8	6	4	3	3	3	3	3																													
Endurance	<p>After applying rated voltage with rated ripple current for 4000~10000hours at 105°C, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>Capacitance change</td> <td colspan="3">Within ± 25% of initial value</td> </tr> <tr> <td>D.F. (tan δ)</td> <td colspan="3">Not more than 200% of specified value</td> </tr> <tr> <td>Leakage current</td> <td colspan="3">initial specified value or less</td> </tr> </table> <table border="1"> <tr> <td>ΦD</td> <td>5~6.3Φ</td> <td>8~10Φ</td> <td>12.5~18Φ</td> </tr> <tr> <td>6.3~10(V)</td> <td>4000hrs</td> <td>6000hrs</td> <td>8000hrs</td> </tr> <tr> <td>16~100(V)</td> <td>5000hrs</td> <td>7000hrs</td> <td>10000hrs</td> </tr> </table>	Capacitance change	Within ± 25% of initial value			D.F. (tan δ)	Not more than 200% of specified value			Leakage current	initial specified value or less			ΦD	5~6.3Φ	8~10Φ	12.5~18Φ	6.3~10(V)	4000hrs	6000hrs	8000hrs	16~100(V)	5000hrs	7000hrs	10000hrs												
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6.3~10(V)	4000hrs	6000hrs	8000hrs																																		
16~100(V)	5000hrs	7000hrs	10000hrs																																		
Shelf Life	After placed at 105°C without voltage applied for 1000 hours,the capacitors shall meet the same requirement as load life.																																				

**■ Dimensions [mm]**



ΦD	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
a	1.5	1.5	1.5	1.5	2.0	2.0	2.0

**■ Multiplier for Ripple Current**

Freq. (Hz)	120	1K	10K	100K
22 ~ 180	0.40	0.75	0.90	1.00
220 ~ 560	0.50	0.85	0.94	1.00
680 ~ 1800	0.60	0.87	0.95	1.00
2200 ~ 3900	0.75	0.90	0.95	1.00
4700 µF Higher	0.85	0.95	0.98	1.00

■ STANDARD RATINGS

Rated Voltage (SurageVoltage) (V)	Cap (μF)	Case size Φ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance (Ω,20°C) (100KHz)	Rated Voltage (SurageVoltage) (V)	Cap (μF)	Case size Φ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance (Ω,20°C) (100KHz)	
6.3V (8)	150	5x11	210	0.58	16V(20)	4700	16x32	3450	0.017	
	330	6.3x11	340	0.22			18x25	3140	0.019	
	680	8x11	640	0.13		5600	16x36	3610	0.015	
	820	10x12.5	865	0.080			18x32	4170	0.015	
	1000	8x15	840	0.087		6800	16x40	4080	0.013	
	10V (13)	1200	8x20	1050		0.069	8200	18x36	4220	0.014
			10x15	1210		0.060	47	5x11	210	0.580
		1500	10x20	1400		0.046	100	6.3x11	340	0.220
		1800	13x16	1450	0.049	220	8x11	640	0.13	
			10x25	1650	0.042	330	8x15	840	0.087	
		2700	10x30	1910	0.031		10x12.5	865	0.080	
		3300	13x20	1900	0.035	470	8x20	1050	0.069	
		3900	13x25	2230	0.027		10x15	1210	0.060	
		4700	13x30	2650	0.024	680	10x20	1400	0.046	
		5600	13x35	2880	0.020		13x16	1450	0.049	
	6800		16x20	2530	0.027	820	10x25	1650	0.042	
13x40		3350	0.017	1000	10x30	1910	0.031			
		2930	0.021		13x20	1900	0.035			
16V (20)	8200	18x20	2860	0.026	25V (32)	1500	13x25	2230	0.027	
		16x32	3450	0.017		1800	13x30	2650	0.024	
	100	5x11	210	0.58		2200	16x20	2530	0.027	
	220	6.3x11	340	0.220			13x35	2880	0.020	
	470	8x11	640	0.130		2700	18x20	2860	0.026	
	680	8x15	840	0.087			13x40	3350	0.017	
		10x12.5	865	0.080		16x25	2930	0.021		
	1000	8x20	1050	0.069		3300	16x32	3450	0.017	
		10x15	1210	0.060			18x25	3140	0.019	
	1200	10x20	1400	0.046		3900	16x36	3610	0.015	
	1500	10x25	1650	0.042			18x32	4170	0.015	
		2200	13x16	1450		0.049	4700	16x40	4080	0.013
	10x30		1910	0.031		18x36		4220	0.014	
	6.3V (8)	3300	13x20	1900		0.035	5600	18x40	4280	0.012
			13x25	2230		0.027		33	5x11	210
		3900	13x30	2650		0.024	56	6.3x11	340	0.220
4700		16x20	2530	0.027	150	8x11	640	0.13		
		13x35	2880	0.020	220	8x15	840	0.087		
5600		13x40	3350	0.017		10x12.5	865	0.080		
		16x25	2930	0.021	270	8x20	1050	0.069		
6800		18x20	2860	0.026	330	10x15	1210	0.060		
		16x32	3450	0.017	470	10x20	1400	0.046		
8200		18x25	3140	0.019		13x16	1450	0.049		
		16x36	3610	0.015	560	10x25	1650	0.042		
18x32		4170	0.015	680		10x30	1910	0.031		
10V (13)		56	5x11	210	0.58	35V (44)	13x20	1900	0.035	
			120	6.3x11	340		0.22	1000	13x25	2230
		330	8x11	640	0.130		1200	13x30	2650	0.024
		470	8x15	840	0.087			16x20	2530	0.027
	10x12.5		865	0.080	1500		13x35	2880	0.020	
	680	8x20	1050	0.069	1800		13x40	3350	0.017	
		10x15	1210	0.060			16x25	2930	0.021	
	1000	10x20	1400	0.046	2200		18x20	2860	0.026	
		13x16	1450	0.049			16x32	3450	0.017	
	1200	10x25	1650	0.042	2700		18x25	3140	0.019	
	1500	10x30	1910	0.031			16x36	3610	0.015	
		2200	13x20	1900	0.035		3300	18x32	4170	0.015
	13x25		2230	0.027	16x40			4080	0.013	
	2700	13x30	2650	0.024	3900		18x36	4220	0.014	
	3300	16x20	2530	0.027			18x40	4280	0.012	
		3900	13x35	2880	0.020		50V (63)	22	5x11	180
13x40	3350		0.017	33	6.3x11	245		0.490		
16x25	2930	0.021	47	6.3x11	300	0.520				
	18x20	2860	0.026	56	6.3x11	295		0.300		

■ STANDARD RATINGS

Rated Voltage (SurageVoltage) (V)	Cap ( $\mu$ F)	Case size $\Phi$ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance ( $\Omega$ ,20°C) (100KHz)	Rated Voltage (SurageVoltage) (V)	Cap ( $\mu$ F)	Case size $\Phi$ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance ( $\Omega$ ,20°C) (100KHz)	
50V (63)	100	8x11	555	0.170	63V (79)	330	13x25	784	0.12	
	120	8x15	730	0.120			18x16	920	0.12	
	150	10x12.5	760	0.120		470	13x30	905	0.1	
	180	8x20	910	0.091			16x20	1040	0.091	
	220	10x16	1050	0.084		560	13x35	1050	0.083	
			1220	0.060			16x25	1250	0.073	
	270	13x16	1260	0.061		680	13x40	1180	0.071	
			1440	0.055			18x20	1240	0.08	
	330	10x25	1690	0.043		820	16x32	1570	0.054	
			1660	0.045			18x25	1490	0.057	
			1690	0.055		1000	16x36	1790	0.045	
	470	13x20	1950	0.034			18x32	1630	0.047	
			1930	0.054	1200	16x40	2020	0.04		
	63V (79)	680	13x30	2310	0.030	100V (125)	15	6.3x11	115	1.2
			13x35	2510	0.025		27	8x12	232	0.63
		820	16x20	2210	0.034		39	8x15	300	0.45
				2920	0.021		47	10x12.5	288	0.43
		1000	16x25	2555	0.025		56	8x20	362	0.33
				2490	0.036		68	10x16	357	0.31
				3010	0.022		82	10x20	466	0.21
2740		0.026	13x16	466	0.23					
1200		18x25	3150	0.019	100		10x25	531	0.2	
			3710	0.016	120		10x30	663	0.15	
1800		18x32	3635	0.021			13x20	690	0.16	
			3680	0.017	150		16x16	795	0.14	
2200	18x36	3800	0.014	180	13x25		784	0.12		
		18x40	3800	0.014	18x16		920	0.12		
50V (63)	15	5x11	55	2.3	220		13x30	905	0.1	
	33	6.3x11	115	1.2			16x20	1040	0.091	
	56	8x12	232	0.63	270		13x35	1050	0.083	
	82	8x15	300	0.45			16x25	1250	0.073	
			288	0.43	330		13x40	1180	0.071	
	120	8x20	362	0.33			18x20	1240	0.08	
			357	0.31	390	16x32	1570	0.054		
	180	10x20	466	0.21		18x25	1490	0.057		
			466	0.23	470	16x36	1790	0.045		
	220	10x25	531	0.2		18x32	1630	0.047		
			663	0.15	560	16x40	2020	0.04		
	270	13x20	690	0.16	680	18x36	1790	0.04		
690			0.16	820	18x40	2330	0.036			
795			0.14							