



EN: This Datasheet/Document is presented by the manufacturer.

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- Endurance: 105°C 1000~3000 hours
- Recommended Applications : Applicable for switching regulator of computer , especially for high frequency
- Corresponding product to RoHS

SY

Long Life

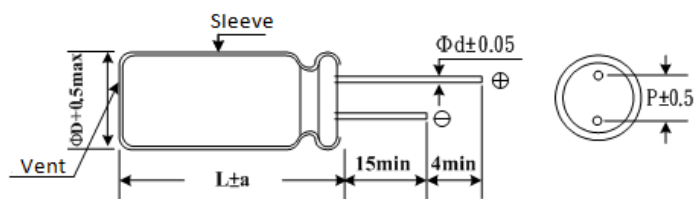
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SPECIFICATIONS

Item	Characteristics								
Category Temperature Range	-40 ~ +105℃								
Rated Voltage Range	6.3 ~ 100VDC								
Rated Capacitance Range	4.7 ~ 15000 μF								
Capacitance Tolerance	± 20 % (120Hz , 20℃)								
Leakage Current (20℃)	I=0.01CV or 3 μA whichever is greater. (After rated voltage applied for 2 minutes) I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V)								
Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)	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
When nominal capacitance is over 1000 μF,tan δ shall be added 0.02 to the listed value with increase of every 1000 μF.									
Low Temperature Stability Impedance Ratio (MAX)	WV	6.3	10	16	25	35	50	63	100
	Z(120Hz)								
	Z-25℃ / Z+20℃	4	3	3	3	3	2	2	2
	Z-40℃ / Z+20℃	8	6	4	4	4	4	4	4
Endurance	After applying rated voltage with ripple current for 1000~3000 hours at 105℃ , the capacitors shall meet the following requirements.								
	Capacitance change		Within ± 20% of initial value						
	D.F. (tan δ)		Not more than 200% of specified value						
	Leakage current		Not more than the specified value						
	Case size (Φ)		5 x 11 ~ 10 x 12.5		10 x 15higher				
	Life time (hours)		2000		3000				
*If dimension is down size,Endurance will be less 1000hrs than standard.									
Shelf Life	After placed at 105℃ without voltage applied for 1000 hours,the capacitors shall meet the same requirement as Endurance.								

Dimensions [mm]



ΦD	5	6.3	8	10	13	16	18	22
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0
Φd	0.50	0.5	0.6	0.6	0.6	0.8	0.8	0.8
a	1.5	1.5	1.5	1.5	2.0	2.0	2.0	2.0

Multiplier for Ripple Current

Freq. (Hz)	50	120	300	1K	10K	100K
Cap (μ F)						
$\leq 4.7 \mu$ F	0.30	0.40	0.50	0.70	0.80	1.00
5.6 ~ 33 μ F	0.40	0.50	0.60	0.80	0.90	1.00
34 ~ 330 μ F	0.60	0.70	0.80	0.90	0.95	1.00
331 ~ 1000 μ F	0.65	0.90	0.90	0.98	1.00	1.00
1200 μ F Above	0.85	0.90	0.95	0.98	1.00	1.00

■ STANDARD RATINGS

Rated Voltage (SurageVoltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	Ripple current (mA/rms105℃) (100KHz)	Impedance (Ω ,20℃) (100KHz)	Rated Voltage (SurageVoltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	Ripple current (mA/rms105℃) (100KHz)	Impedance (Ω ,20℃) (100KHz)
6.3V (8)	150	5x11	200	0.420	16V (20)	220	8x11	550	0.140
	220	6.3x11	250	0.320		330	8x11	550	0.120
	270	6.3x11	250	0.220			8x15	750	0.100
	330	6.3x11	250	0.230			10x12.5	688	0.080
		8x11	400	0.180		470	8x15	730	0.093
	470	*6.3x11	440	0.180			10x12.5	800	0.085
		8x11	550	0.140		680	10x16	1050	0.064
	680	*8x11	580	0.120		820	10x20	1100	0.044
		8x15	700	0.100		1000	*10x16	1140	0.043
	820	8x20	750	0.085			10x20	1250	0.039
	1000	*8x11	580	0.150		1200	*10x25	1310	0.042
		8x15	700	0.085			13x20	1450	0.038
		8x20	800	0.069		1500	*10x20	1200	0.045
		10x12.5	690	0.080			13x20	1600	0.034
	1200	10x16	1000	0.064		2200	*10x30	1780	0.032
	1500	*8x15	980	0.085			*13x20	1720	0.033
		8x20	800	0.051			13x25	2000	0.028
		*10x16	1070	0.055		3300	*13x40	2200	0.026
		10x20	1250	0.044			16x25	2200	0.024
	2200	*10x20	1220	0.051			16x36	2550	0.019
		*10x25	1310	0.048	6800	18x36	2800	0.019	
		13x20	1450	0.043	25V (32)	10	5x11	50	0.550
	3300	*10x25	1400	0.043		47	5x11	150	0.450
		13x25	1700	0.035		56	5x11	150	0.420
	3900	13x25	1750	0.032		68	6.3x11	200	0.370
	4700	*13x30	1570	0.033		100	6.3x11	250	0.220
		*13x25	1520	0.032		120	8x11	300	0.200
		16x25	1800	0.028		150	8x11	550	0.140
	6800	16x32	2000	0.024		220	8x11	550	0.120
	8200	16x32	2350	0.019			8x15	750	0.100
	10000	16x36	2550	0.019		330	*8x15	660	0.100
	15000	18x36	3000	0.019			8x20	800	0.069
10V (13)	100	5x11	150	0.420			10x16	900	0.086
	120	5x11	200	0.370		470	8x20	800	0.067
	150	6.3x11	250	0.320			10x12.5	760	0.086
	220	6.3x11	300	0.220			10x16	1050	0.064
	330	8x11	550	0.140		680	10x20	1100	0.039
	470	8x11	550	0.120		820	10x20	1250	0.039
		8x15	750	0.100		1000	*10x20	1160	0.047
	680	*8x11	640	0.110			*10x25	1310	0.042
		10x12.5	800	0.085			13x20	1450	0.038
	820	10x16	1050	0.064		1200	13x25	1600	0.035
	1000	8x20	1080	0.065		1500	*13x30	1750	0.032
		*10x12.5	930	0.075			16x25	2000	0.028
		10x16	990	0.085		2200	*13x30	1810	0.029
		10x20	1100	0.050			*16x25	1660	0.032
	1200	10x20	1250	0.044			16x32	2200	0.024
	1500	10x20	1450	0.039		3300	*16x36	2540	0.019
	2200	*10x20	1330	0.047			18x36	2550	0.019
		*10x25	1450	0.039			35V (44)		18x36
		13x20	1600	0.038	4700	18x36	2800	0.019	
	3300	*10x30	1740	0.032	35V (44)	4.7	5x11	115	1.200
		13x25	2000	0.028		6.8	5x11	120	1.000
		*13x25	1860	0.028		10	5x11	140	0.900
	4700	16x25	2200	0.024		15	5x11	170	0.690
		16x36	2550	0.019		22	5x11	190	0.600
	8200	18x36	2800	0.019		33	5x11	200	0.580
	16V (20)	56	5x11	100		0.630	47	6.3x11	250
68		5x11	150	0.420		68	6.3x11	300	0.220
100		5x11	200	0.370		100	6.3x11	350	0.180
120		6.3x11	250	0.320			8x11	450	0.140
150		6.3x11	300	0.220		120	8x11	550	0.130

" * " is down size , Ripple Life is less 1000 hrs than standard

SC

Low impedance 、High Ripple Series

■ STANDARD RATINGS

Rated Voltage (SurageVoltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance (Ω ,20°C) (100KHz)	Rated Voltage (SurageVoltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance (Ω ,20°C) (100KHz)
35V (44)	150	8x15	650	0.100	50V (63)	1000	16x25	1900	0.039
	220	8x15	650	0.100		1200	16x32	2100	0.025
		10x12.5	800	0.069		1500	16x36	2550	0.025
	330	*10x16	900	0.052		2200	18x40	2800	0.025
		10x20	1050	0.044	63V (79)	10	5x11	140	1.850
	470	10x20	1300	0.039		15	5x11	200	1.700
	680	13x20	1400	0.038		22	6.3x11	250	1.200
	820	13x20	1550	0.034		33	6.3x11	300	0.900
	1000	13x25	1700	0.029		47	8x11	450	0.700
		16x25	1900	0.028		68	8x11	550	0.520
	1500	16x25	2100	0.024		100	8x20	650	0.350
	2200	*16x32	2300	0.021		120	10x16	800	0.300
		16x36	2550	0.019		150	10x16	1050	0.200
	3300	18x36	2880	0.019		220	10x20	1300	0.150
50V (63)	4.7	5x11	115	2.000		330	13x20	1400	0.100
	6.8	5x11	120	1.850		470	13x25	1550	0.064
	10	5x11	140	1.700		680	16x25	1700	0.052
	15	5x11	180	1.200		820	16x32	1900	0.048
	22	5x11	200	0.700		1000	16x32	2100	0.042
	33	6.3x11	250	0.600		1200	16x36	2550	0.036
	47	6.3x11	300	0.520		1500	18x36	2800	0.033
	68	8x11	450	0.350	100V (125)	10	6.3x11	200	1.500
	100	8x11	450	0.290		15	6.3x11	250	1.200
		8x15	550	0.250		22	8x11	300	0.790
	120	8x20	650	0.210		33	8x15	450	0.590
	150	10x12.5	800	0.160		47	10x16	550	0.350
	220	*10x16	1050	0.100		68	10x20	650	0.240
		10x25	1050	0.068		100	13x20	800	0.180
	330	10x20	1300	0.072		120	13x25	1050	0.150
	470	*10x20	1390	0.075		150	13x25	1300	0.110
		13x20	1400	0.060		220	16x25	1400	0.071
	680	13x25	1550	0.050		330	16x32	1550	0.049
	820	16x25	1700	0.040		470	18x36	1770	0.038

" * " is down size , Ripple Life is less 1000 hrs than standard