LSE 105℃ LOW ESR (Design for M/B)

Features

- 105°C, 2000~4000hours assured
- Low ESR, suitable for computer main board
- Small size with large permissible ripple current

Specifications

Item	Performance Characteristics
Operating Temperature Range	-40 to +105°C
Capacitance Tolerance	±20% (at 120Hz, 20°C)
Leakage Current (at 20°C)	I≦0.01 CV or 3 (μA) whichever is greater (After 2 minutes) Where, C = rated capacitance in μF. V=rated DC working voltage in V.
Dissipation Factor [Tanδ120Hz,20 °C]	Rated Voltage: 6.3 / 10 / 16 / 25 / 35 / 50 Tanδ(max): 0.22 / 0.19 / 0.16 / 0.14 / 0.12 / 0.10 When the capacitance exceeds 1000 μF, 0.02 shall be added every 1000μF increase.
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below. Rated Voltage(v): 6.3 / 10 / 16 / 25 / 35 / 50 Impedance Ratio Z (-25°C)/Z(+20°C): 3 / 2 / 2 / 2 / 2 / 2 Impedance Ratio Z (-40°C)/Z(+20°C): 3 / 3 / 3 / 3 / 3 / 3
Load Life Test	Test Time: 2000 hrs for φD=8mm; 3000 hrs for 10φx13~16L mm; 4000 hrs for 10φx20L &φD≧13mm Capacitance Change: Within ±25% of initial value Dissipation Factor: Less than 200% of specified value Leakage Current: Within specified value
Shelf Life Test	Test Time: 1000hrs Capacitance Change: Within ±25% of initial value Dissipation Factor: Less than 200% of specified value Leakage Current: Within specified value The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 2000 /4000 hrs at 105°C. without voltage applied.
Standards	Satisfies Characteristic W of JIS C 5141

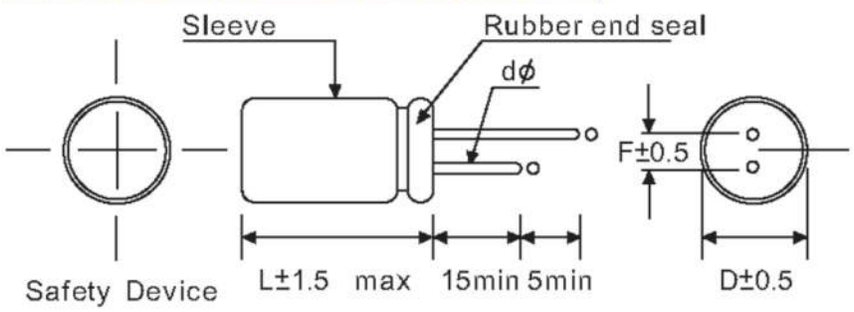
Multiplier for Ripple Current VS, Frequency

CAP(μF)/Hz		50(60)	120	1K	10K	100K
Multiplier	Under 33	0.45	0.55	0.75	0.90	1.0
	39 to 330	0.60	0.70	0.85	0.95	1.0
	470 to 1000	0.65	0.75	0.90	0.98	1.0
	1200 up above	0.75	0.80	0.95	1.0	1.0

Multiplier for Ripple Current VS, Temperature

Temperature (°C)	45	60	70	85	105
Multiplier	3.10	1.90	1.65	1.40	1.0

Diagram of Dimensions: (Unit: mm)



Dφ	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
dφ	0.5			0.6		0.8	

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Case Size

φD x L (mm)

VDC / φDxL	6.3V			VDC / φDxL	10V		
	μF	Impedance (Ω.Max/100KHz)	Ripple Current (mA/rms.105°C)		μF	Impedance (Ω.Max/100KHz)	Ripple Current (mA/rms.105°C)
		20°C	100KHz			20°C	100KHz
8x11	390	0.200	415	8x11	330	0.200	415
8x16	560	0.160	495	8x16	470	0.160	495
8x20	820	0.110	640	8x20	680	0.110	640
10x12	470	0.120	450	10x12	390	0.120	450
10x17	680	0.084	600	10x17	680	0.085	680
10x20	1200	0.062	1040	10x20	1000	0.062	1040
10x25	1500	0.052	1260	10x25	1200	0.052	1260
13x21	2200	0.046	1340	13x21	1800	0.046	1340
13x26	2700	0.034	1690	13x26	2200	0.034	1690
13x30	3900	0.030	1950	13x30	2700	0.030	1950
13x35	4700	0.027	2200	13x35	3300	0.027	2200
13x40	5600	0.024	2390	13x40	3900	0.024	2390
16x26	5600	0.028	2070	16x26	3900	0.028	2070
16x31	6800	0.025	2350	16x31	5600	0.025	2350
-	-	-	-	16x36	6800	0.022	2550

•Ripple Current(mA,rms)at105°C 100KHz

•Max Impedance {Ω} at 20°C 100KHz

VDC / φDxL	16V			VDC / φDxL	25V		
	μF	Impedance (Ω.Max/100KHz)	Ripple Current (mA/rms.105°C)		μF	Impedance (Ω.Max/100KHz)	Ripple Current (mA/rms.105°C)
		20°C	100KHz			20°C	100KHz
8x11	270	0.200	415	8x11	150	0.200	415
8x16	330	0.160	495	8x16	220	0.160	495
8x20	470	0.110	610	8x20	330	0.110	550
10x12	270	0.120	430	10x12	180	0.120	430
10x17	470	0.084	700	10x17	330	0.084	700
10x20	680	0.062	940	10x20	470	0.062	900
10x25	820	0.052	1100	10x25	560	0.052	1100
13x21	1200	0.046	1340	13x21	820	0.046	1200
13x26	1500	0.034	1520	13x26	1000	0.034	1520
13x30	2200	0.030	1950	13x30	1500	0.030	1950
13x35	2700	0.027	2200	13x35	1800	0.027	2200
13x40	3300	0.024	2390	13x40	2200	0.024	2390
16x26	2700	0.028	2070	16x26	1800	0.028	2070
16x31	3900	0.025	2350	16x31	2700	0.025	2350
16x36	4700	0.022	2550	16x36	3300	0.022	2550
16x41	5600	0.021	2850	16x41	3900	0.021	2900
18x36	6800	0.018	3000	18x36	3900	0.018	2660
-	-	-	-	18x41	4700	0.017	3010

•Ripple Current(mA,rms)at105°C 100KHz

•Max Impedance {Ω} at 20°C 100KHz

LSE 105℃ LOW ESR (Design for M/B)

Case Size

φD x L (mm)

VDC / φDxL	35V			VDC / φDxL	50V		
	μF	Impedance (Ω.Max/100KHz)	Ripple Current (mA/rms.105°C)		μF	Impedance (Ω.Max/100KHz)	Ripple Current (mA/rms.105°C)
		20°C	100KHz			20°C	100KHz
8x11	120	0.200	415	8x11	68	0.290	340
8x16	180	0.160	495	8x16	82	0.250	470
8x20	220	0.110	550	8x20	120	0.180	550
10x12	120	0.120	480	10x12	82	0.160	480
10x17	220	0.084	710	10x17	120	0.120	600
10x20	330	0.062	1040	10x20	180	0.088	750
10x25	390	0.052	1260	10x25	220	0.068	950
13x21	560	0.046	1340	13x21	330	0.059	1190
13x26	680	0.034	1690	13x26	470	0.045	1490
13x30	1000	0.034	1950	13x30	560	0.039	1720
13x35	1200	0.027	2200	13x35	680	0.033	1890
13x40	1500	0.024	2390	13x40	820	0.029	1950
16x26	1200	0.028	2070	16x26	820	0.033	1880
16x31	1800	0.025	2350	16x31	1000	0.029	2150
16x36	2200	0.022	2550	16x36	1200	0.025	2320
16x41	2700	0.018	2900	16x41	1500	0.021	2540
18x36	2700	0.021	2660	18x36	1800	0.023	2400
18x40	3300	0.010	3010	18x41	2200	0.020	2610

•Ripple Current(mA,rms)at105°C 100KHz

•Max Impedance {Ω} at 20°C 100KHz