LSE 105 °C LOW

Features

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

Specifications

Item	Performance
Operating Temperature Range	-40 to +105 °C
Capacitance Tolerance	±20 % (at 120 Hz, 20 °C)
Leakage Current (at 20 °C,)	I ⩽ 0.01 CV or 3 (uA) whichever is greater (After 2 minutes) Where, C = rated capacitance in uF, V = rated DC working voltage in V.

Dissipation Factor (tan δ at 120 Hz, 20 °C)

When the capacitance exceeds 1000 uF, 0.02 shall be added every 1000 uF increase

Rated Voltage	6.3	10	16	25	35	50
tan δ max	0.22	0.19	0.16	0.14	0.12	0.10

Low Temperature Characteristics (at 120 Hz)

Impedance ratio shall not exceed the values given in the table below

Rated Voltage		6.3	10	16	25	35	50
Impedance ratio	Z-25 °C/Z+20 °C	3	2	2	2	2	2
	Z-40 °C/Z+20 °C	3	3	3	3	3	3

Load Life Test

Test Time	2000 hrs for φD = 5~8mm 3000 hrs for 10 φ x13~16Lmm 4000 hrs for 10 φ x 20L & φD ⩾ 13 mm
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

Shelf Life Test

Test Time	1000 hrs
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 exposing them for 1000 hrs at 105 °C without voltage applied.

Ripple Current & Frequency Multipliers

Freq. (Hz) / Cap. (uF)	60(50)	120	1K	10K	100K
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

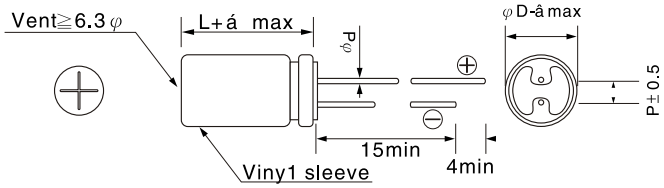
Ripple Current & Frequency Multipliers

Temperature (° C)	85	105
Multiplier	1.70	1.00

Standards

Satisfies Characteristic W of JIS C 5141

Diagram Of Dimensions



Lead Spacing And Diameter

Unit: mm

φD	5	6.3	8	10	13	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	5.0	5.0	7.5	7.5
φd	0.5		0.6			0.8			
α	1.0			1.5					
β	0.5								

Dimension & Permissible Ripple Current

Dimension: φD x L (mm) Ripple Current: mA /rms at 1 00KHz, 105 °C

V.DC / Item / ØD x L	6.3 V					10 V					16 V				
	uF	Impedance (Ω, Max/100KHz)		Ripple Current (mA/rms, 105 °C)		uF	Impedance (Ω, Max/100KHz)		Ripple Current (mA/rms, 105 °C)		uF	Impedance (Ω, Max/100KHz)		Ripple Current (mA/rms, 105 °C)	
		20 °C	-10 °C	120Hz	100KHz		20 °C	-10 °C	120Hz	100KHz		20 °C	-10 °C	120Hz	100KHz
5x11	150	150	1.0	175	250	100	0.3	1.0	175	250	56	0.3	1.0	175	250
6.3x11	330	330	0.41	284	405	220	0.13	0.41	284	405	120	0.13	0.41	284	405
8x11.5	560	560	0.22	570	760	470	0.07	0.22	570	760	330	0.07	0.22	532	760
8x16	820	820	0.17	746	995	680	0.056	0.17	746	995	470	0.056	0.17	746	995
8x20	1200	1200	0.13	1000	1250	1000	0.041	0.13	938	1250	680	0.041	0.13	1000	1250
10x12.5	1000	1000	0.16	773	1030	680	0.053	0.16	773	1030	470	0.053	0.16	773	1030
10x16	1200	1200	0.12	1 144	1430	1000	0.038	0.12	1073	1430	680	0.038	0.12	1073	1430
10x20	1500	1500	0.069	1456	1820	1200	0.023	0.069	1456	1820	1000	0.023	0.069	1365	1820
10x20	2200	2200	0.066	1720	2150	1500	0.022	0.066	1720	2150	1200	0.022	0.066	1720	2150
10x25	3300	3300	0.053	1888	2360	2200	0.021	0.053	1888	2360	1500	0.021	0.053	1888	2360
13x25	3900	3900	0.045	2216	2770	3300	0.017	0.045	2216	2770	2200	0.018	0.045	2216	2770
13x30	4700	4700	0.041	2632	3290	3900	0.016	0.041	2632	3290	2700	0.016	0.041	2632	3290
13x35	5600	5600	0.039	2720	3400	4700	0.015	0.039	2720	3400	3300	0.015	0.039	2720	3400
16x25	6800	6800	0.043	2768	3460	5600	0.016	0.043	2768	3460	3900	0.016	0.043	2768	3460

V.DC / Item / ØD x L	25 V					35 V					50 V				
	uF	Impedance (Ω, Max/100KHz)		Ripple Current (mA/rms, 105 °C)		uF	Impedance (Ω, Max/100KHz)		Ripple Current (mA/rms, 105 °C)		uF	Impedance (Ω, Max/100KHz)		Ripple Current (mA/rms, 105 °C)	
		20 °C	-10 °C	120Hz	100KHz		20 °C	-10 °C	120Hz	100KHz		20 °C	-10 °C	120Hz	100KHz
5x11	47	0.3	1.0	175	250	33	0.3	1.0	138	250	22	0.34	1.18	131	238
6.3x11	100	0.13	0.41	284	405	56	0.13	0.41	284	405	56	0.14	0.5	270	385
8x1 1.5	220	0.07	0.22	532	760	150	0.07	0.22	532	760	100	0.074	0.22	507	724
8x16	330	0.056	0.17	697	995	220	0.056	0.17	697	995	120	0.061	0.18	665	950
8x20	470	0.041	0.13	938	1250	270	0.041	0.13	875	1250	180	0.046	0.14	833	1190
10x12.5	330	0.053	0.16	721	1030	220	0.053	0.16	721	1030	150	0.061	0.18	685	979
10x16	470	0.038	0.12	1073	1430	330	0.038	0.12	1001	1430	220	0.042	0.12	959	1370
10x20	680	0.023	0.069	1365	1820	470	0.023	0.069	1365	1820	270	0.03	0.09	1 106	1580
10x20	820	0.022	0.066	1613	2150	560	0.022	0.066	1613	2150	330	0.028	0.085	1309	1870
10x25	1000	0.021	0.053	1770	2360	680	0.021	0.053	1770	2360	470	0.027	0.068	1538	2050
13x25	1500	0.018	0.045	2216	2770	1000	0.017	0.045	2078	2770	560	0.023	0.059	1808	2410
13x30	1800	0.016	0.041	2632	3290	1200	0.016	0.041	2632	3290	680	0.021	0.052	2145	2860
13x35	2200	0.015	0.039	2720	3400	1500	0.015	0.039	2720	3400	820	0.019	0.051	2220	2960
16x25	2700	0.016	0.043	2768	3460	1800	0.016	0.043	2768	3460	1000	0.021	0.056	2258	3010