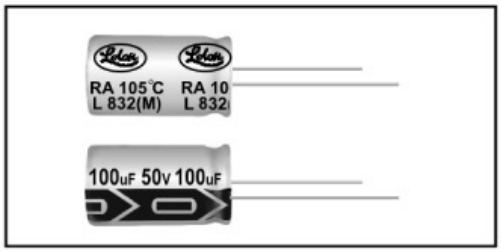
Feature

- 105℃, 1,000 hours assured
- Very low leakage current
- Use in high temperature industrial equipment
- RoHS Compliance



SPECIFICATIONS

Items	Performance
Operating Temperature Range	-40℃ ~ +105℃
Capacitance Tolerance	±20% (at 120Hz, 20℃)
Leakage Current (at 20℃)	I = 0.002CV or 0.4 (μA) whichever is greater (after 2 minutes) Where, C = rated capacitance in μF V = rated DC working voltage in V
Dissipation Factor (Tan δ at 120Hz, 20℃)	When the capacitance exceeds 1,000 μF, 0.02 shall be added every 1,000 μF increase.

Rated Voltage	6.3	10	16	25	35	50	63	100
Tan δ (max)	0.24	0.21	0.16	0.14	0.12	0.10	0.09	0.08

Low Temperature Characteristics (at 120Hz)

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

Rated Voltage		6.3	10	16	25	35	50	63	100
Impedance Ratio	Z(-25℃)/Z(+20℃)	4	3	3	2	2	2	2	2
	Z(-40℃)/Z(+20℃)	8	6	6	4	4	3	3	3

Load Life Test

Test Time	1,000 hrs
Capacitance Change	Within ±20% 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℃ after the rated voltage applied with rated ripple current for 1,000 hrs at 105℃.

Shelf Life Test

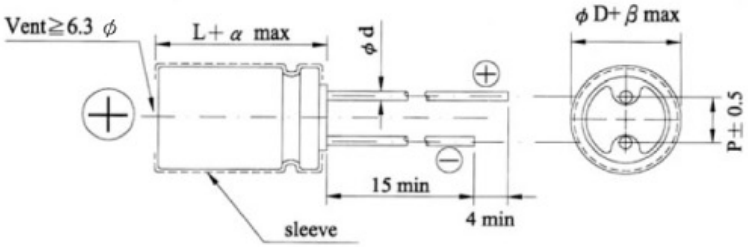
Test Time	1,000 hrs
Capacitance Change	Within ±20% of initial value
Dissipation Factor	Less than 200% of specified value
Leakage Current	Within specified value

* The above specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hrs at 105℃ without voltage applied.

Ripple Current & Frequency Multipliers

Freq.(Hz) / Cap.(μF)	60(50)	120	500	1K	10K up
Under 100	0.75	1.00	1.35	1.55	1.90
100 < C ≦ 1,000	0.83	1.00	1.23	1.32	1.45
1,000 up above	0.90	1.00	1.12	1.10	1.12

DIAGRAM OF DIMENSIONS



Unit: mm

LEAD SPACING AND DIAMETER

φD	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	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 × L(mm)
Ripple Current: mA/rms at 120 Hz, 105°C

V. DC		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)		100V (2A)	
μF	Contents	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA
0.1	0R1											5×11	1.3			5×11	2.6
0.22	R22											5×11	2.9			5×11	5.8
0.33	R33											5×11	4.4			5×11	8
0.47	R47											5×11	7			5×11	10
1	010											5×11	13			5×11	15
2.2	2R2											5×11	20			5×11	23
3.3	3R3											5×11	25			5×11	29
4.7	4R7							5×11	26	5×11	28	5×11	30	5×11	32	5×11	34
10	100					5×11	35	5×11	38	5×11	41	5×11	46	5×11	50	6.3×11	56
22	220			5×11	49	5×11	54	5×11	57	5×11	61	5×11	68	6.3×11	82	8×11.5	96
33	330	5×11	54	5×11	60	5×11	64	5×11	69	5×11	75	6.3×11	90	6.3×11	100	10×12.5	140
47	470	5×11	65	5×11	70	5×11	99	5×11	82	6.3×11	100	6.3×11	110	8×11.5	135	10×16	180
100	101	5×11	95	5×11	105	6.3×11	125	6.3×11	135	8×11.5	170	8×11.5	180	10×12.5	225	12.5×20	320
220	221	6.3×11	160	6.3×11	175	8×11.5	215	8×11.5	230	10×12.5	300	10×16	345	10×20	400	16×25	570
330	331	6.3×11	195	8×11.5	245	8×11.5	260	10×12.5	335	10×16	400	10×20	460	12.5×20	540	16×25	700
470	471	8×11.5	270	8×11.5	290	10×12.5	370	10×16	440	10×20	520	12.5×20	610	12.5×25	700	16×31.5	880
1,000	102	10×12.5	460	10×16	550	10×20	640	12.5×20	770	12.5×25	920	16×25	1,080	16×31.5	1,210		
2,200	222	12.5×20	810	12.5×20	860	12.5×25	1,000	16×25	1,170	16×31.5	1,340	18×35.5	1,530				
3,300	332	12.5×20	960	12.5×25	1,100	16×25	1,300	16×31.5	1,460	18×35.5	1,650						
4,700	472	16×25	1,330	16×25	1,400	16×31.5	1,600	18×35.5	1,780	18×40	1,900						