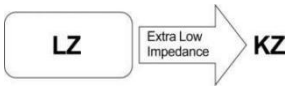
LZ Series

Low Impedance

- Low Impedance with temperature range -55 ~ +105℃
- Load life of 1000 ~ 2000 hours
- RoHS Compliance

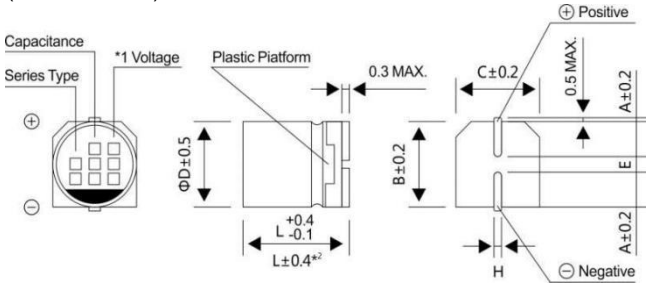


■ SPECIFICATIONS

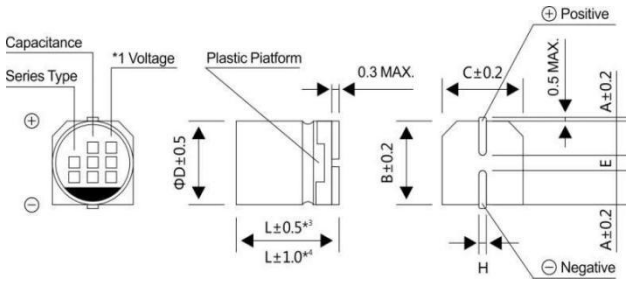
Item	Characteristics							
Operation Temperature Range	-55 ~ +105℃							
Voltage Range	6.3 ~ 50V							
Capacitance Range	1~4700μF							
Capacitance Tolerance	± 20 % (at 120Hz , 20℃)							
Leakage Current	WV(V)	6.3 ~ 50						
	Size	Φ4 ~ 10			Φ12.5 ~ 16			
	Time	After 2 minutes (application of rated voltage)			After 1 minutes (application of rated voltage)			
	L.C.	I≤0.01CV or 3μA , whichever is greater			I≤0.03CV or 4μA , whichever is greater			
Dissipation Factor (MAX) (tanδ) (at 120Hz ,20℃)	WV(V)		6.3	10	16	25	35	50
	tanδ	Φ4~10	6.3	0.19	0.16	0.14	0.12	0.12
		Φ12.5~16	6.3	0.22	0.18	0.16	0.14	0.12
Low Temp.Impedance Stability at 120Hz	WV(V)			6.3	10	16	25	35	50~100
	Z(-25℃)/ Z(+20℃)	Φ4~10		2	2	2	2	2	2
	Z(-55)℃/ Z(+20℃)			5	4	4	3	3	3
	Z(-25℃)/ Z(+20℃)	Φ12.5~1		3	3	2	2	2	2
	Z(-55)℃/ Z(+20℃)	6		10	8	6	4	3	3
Load Life	After 2000hrs. (1000hrs. For Φ4~Φ6.3x5.4) application of the rated voltage at 105℃, they meet the characteristics listed below.							
	Capacitance change	Within ±20% of initial value						
	Dissipation Factor	200% or less of initial specified value						
	Leakage Current	initial specified value or less						
Shelf Life	After leaving capacitors under no load at 105℃ for 1000 hours, they meet the specified value for load life characteristics listed above.							
Resistance to Soldering Heat	After reflow soldering and restored at room temperature, they meet the characteristics listed below.							
	Capacitance change	Within ±10% of initial value						
	Dissipation Factor	initial specified value or less						
	Leakage Current	initial specified value or less						
Marking	Black print on the case top							

■ DRAWING (Unit: mm)

(Φ4 ~ Φ6.3x7.7)



Φ8x10.5 ~ Φ16



*1. Voltage mark for 6.3V is 【6V】

*2 Applicable to Φ6.3x7.7

*3 Applicable to Φ8x10.5 ~ Φ10

*4 Applicable to Φ12.5 ~ Φ16

LZ Series

■ DIMENSIONS(Unit:mm)

ΦDxL	4x5.4	5x5.4	6.3x5.4	6.3x7.7	8x10.5	10x10.5	10x13.5	12.5x13.5	12.5x16	16x16.5
A	2.0	2.2	2.6	2.6	3.0	3.3	3.3	4.9	4.9	5.8
B	4.3	5.3	6.6	6.6	8.4	10.4	10.4	13.0	13.0	17.0
C	4.3	5.3	6.6	6.6	8.4	10.4	10.4	13.0	13.0	17.0
E±0.2	1.0	1.4	1.9	1.9	3.1	4.7	4.7	4.7	4.7	6.4
L	5.4	5.4	5.4	7.7	10.5	10.5	13.5	13.5	16.0	16.5

■ DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT&IMPEDANCE

WV / Code / μF		6.3			10			16		
		0J			1A			1C		
10	100							4x5.4	3.0	60
15	150							5x5.4	1.8	95
								(4x5.4)	(3.0)	(60)
22	220	4x5.4	3.0	60	5x5.4	1.8	95	5x5.4	1.8	95
					(4x5.4)	(3.0)	(60)	(4x5.4)	(3.0)	(60)
33	330	5x5.4	1.8	95	5x5.4	1.8	95	6.3x5.4	1.0	140
		(4x5.4)	(3.0)	(60)	(4x5.4)	(3.0)	(60)	(5x5.4)	(1.8)	(95)
47	470	5x5.4	1.8	95	6.3x5.4	1.0	140	6.3x5.4	1.0	140
		(4x5.4)	(3.0)	(60)	(5x5.4)	(1.8)	(95)	(5x5.4)	(1.8)	(95)
68	680	6.3x5.4	1.0	140	6.3x5.4	1.0	140	6.3x7.7	0.6	230
		(5x5.4)	(1.8)	(95)				(6.3x5.4)	(1.0)	(140)
100	101	6.3x5.4	1.0	140	6.3x7.7	0.6	230	6.3x7.7	0.6	230
		(5x5.4)	(1.8)	(95)	(6.3x5.4)	(1.0)	(140)	(6.3x5.4)	(1.0)	(140)
150	151	6.3x7.7	0.6	230	6.3x7.7	0.6	230	6.3x7.7	0.6	230
		(6.3x5.4)	(1.0)	(140)	(6.3x5.4)	(1.0)	(140)			
220	221	6.3x7.7	0.6	230	6.3x7.7	0.6	230	8x10.5	0.30	450
		(6.3x5.4)	(1.0)	(140)				(6.3x7.7)	(0.6)	(230)
330	331	6.3x7.7	0.6	230	8x10.5	0.30	450	10x10.5	0.15	670
								(8x10.5)	(0.30)	(450)
470	471	8x10.5	0.30	450	8x10.5	0.30	450	10x10.5	0.15	670
		(6.3x7.7)	(0.6)	(230)				(8x10.5)	(0.30)	(450)
680	681	8x10.5	0.30	450	10x10.5	0.15	670	10x10.5	0.15	670
1000	102	10x10.5	0.15	670	10x10.5	0.15	670	10x10.5	0.15	670
		(8x10.5)	(0.30)	(450)						
1500	152	10x13.5	0.13	750	12.5x13.5	0.11	820	12.5x13.5	0.11	820
		(10x10.5)	(0.15)	(670)	(10x13.5)	(0.13)	(750)			
2200	222	12.5x13.5	0.11	820	12.5x16	0.09	950	16x16.5	0.08	1260
		(10x13.5)	(0.13)	(750)				(12.5x16)	(0.09)	(950)
3300	332	12.5x16	0.09	950	16x16.5	0.08	1260	16x16.5	0.08	1260
		(12.5x13.5)	(0.11)	(820)						
4700	472	16x16.5	0.08	1260	16x16.5	0.08	1260			

WV / Code / μF		25			35			50		
		1E			1V			1H		
1.0	010				4x5.4	3.0	60	4x5.4	5.0	30
1.5	1R5				4x5.4	3.0	60	4x5.4	5.0	30
2.2	2R2				4x5.4	3.0	60	4x5.4	5.0	30
3.3	3R3				4x5.4	3.0	60	4x5.4	5.0	30
4.7	4R7	4x5.4	3.0	60	4x5.4	3.0	60	5x5.4	3.0	50
6.8	6R8	4x5.4	3.0	60	5x5.4	1.8	95	6.3x5.4	2.0	70
10	100	5x5.4	1.8	95	5x5.4	1.8	95	6.3x5.4	2.0	70
		(4x5.4)	(3.0)	(60)	(4x5.4)	(3.0)	(60)			
15	150	6.3x5.4	1.8	95	5x5.4	1.8	95	6.3x5.4	2.0	70
22	220	6.3x5.4	1.0	140	6.3x5.4	1.0	140	6.3x7.7	1.0	120
		(5x5.4)	(1.8)	(95)	(5x5.4)	(1.8)	(95)	(6.3x5.4)	(2.0)	(70)

LZ Series

■ DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT&IMPEDANCE

WV / Code / μF		25			35			50		
		1E			1V			1H		
33	330	6.3x5.4	1.0	140	6.3x5.4	1.0	140	6.3x7.7	1.0	120
		(5x5.4)	(1.8)	(95)	(6.3x7.7)	(0.6)	(230)			
47	470	6.3x7.7	0.6	230	6.3x7.7	0.6	230	6.3x7.7	1.0	120
		(6.3x5.4)	(1.0)	(140)	(6.3x5.4)	(1.0)	(140)			
68	680	6.3x7.7	0.6	230	6.3x7.7	0.6	230	8x10.5	0.6	300
100	101	6.3x7.7	0.6	230	8x10.5	0.3	450	8x10.5	0.6	300
					(6.3x7.7)	(0.6)	(230)			
150	151	8x10.5	0.3	450	8x10.5	0.3	450	10x10.5	0.30	500
		(6.3x7.7)	0.6	(230)						
220	221	8x10.5	0.30	450	10x10.5	0.15	670	10x10.5	0.3	500
					(8x10.5)	(0.30)	(450)			
330	331	10x10.5	0.15	670	10x10.5	0.15	670	16x16.5	0.12	1060
		(8x10.5)	(0.30)	(450)				12.5x13.5	(0.20)	(650)
								10x13.5	(0.25)	(580)
470	471	10x10.5	0.15	670	10x13.5	0.13	750	16x16.5	0.12	1060
					(10x10.5)	(0.15)	(670)	(12.5x16)	(0.15)	(700)
680	681	10x13.5	0.13	750	12.5x13.5	0.11	820	16x16.5	0.12	1060
					(10x13.5)	(0.13)	(750)			
1000	102	16x16.5	0.08	1260	16x16.5	0.08	1260			
		12.5x13.5	(0.11)	(820)	(12.5x16)	(0.09)	(950)			
1500	152	12.5x16	0.09	950	16x16.5	0.08	1260	Case size ΦDxL (mm)	Impedance (Ω) at 20℃ 100KHz	Ripple current (mA rms) at 105℃, 100KHz
2200	222	16x16.5	0.08	1260						

■ FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

Frequency			50Hz	120Hz	300Hz	1KHz	10KHz~
Coefficient	Φ4~Φ10	1~68μF	0.35	0.50	0.64	0.83	1.00
		100~2200μF	0.40	0.55	0.70	0.85	1.00
	Φ12.5~Φ16	~680μF	0.45	0.65	0.80	0.90	1.00
		1000~4700μF	0.65	0.85	0.95	1.00	1.00