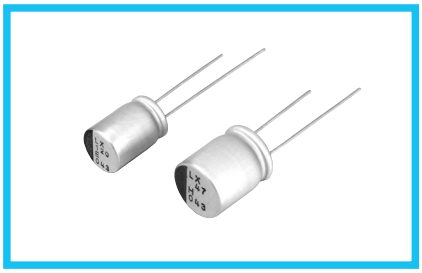
LX series

Radial Lead Type, Long Life Assurance

High Ripple Current | Low Impedance | For High Frequency | Long Life | Anti-Solvent Feature

- High reliability, High voltage (to 50V).
- Low ESR, High ripple current.
- Long life of 3000 hours at 125°C.
- Radial lead type:
  Lead free flow soldering condition correspondence.
- Adapted to the RoHS directive (2011/65/EU).

LX → Higher Temperature → LV

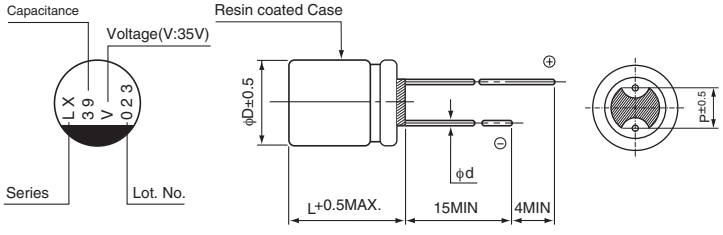


■Specifications

Item	Performance Characteristics
Category Temperature Range	−55 to +125°C
Rated Voltage Range	16 to 50V
Rated Capacitance Range	22 to 390μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Tangent of loss angle (tan δ)	Less than or equal to the specified value at 120Hz, 20°C
ESR (※1)	Less than or equal to the specified value at 100kHz, 20°C
Leakage Current (※2)	Less than or equal to the specified value. After 2 minutes' application of rated voltage at 20°C
Temperature Characteristics (Max.Impedance Ratio)	Z+125°C / Z+20°C ≦ 1.25 (100kHz) Z−55°C / Z+20°C ≦ 1.25
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 3000 hours at 125°C. Capacitance change: Within ± 20% of initial value (※3) tan δ: 150% or less of the initial specified value ESR (※1): 150% or less of the initial specified value Leakage current (※2): Less than or equal to the initial specified value
Damp Heat (Steady State)	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 60°C, 90% RH. Capacitance change: Within ± 20% of initial value (※3) tan δ: 150% or less of the initial specified value ESR (※1): 150% or less of the initial specified value Leakage current (※2): Less than or equal to the initial specified value
Resistance to Soldering Heat	After soldering the capacitor under the soldering conditions prescribed here as preheat at 150 to 200°C for 60 to 180 seconds and peak temperature at 265°C for 10 seconds or less, the capacitor shall meet the specifications listed at right, provided that its temperature profile is measured at both of terminal ends facing the soldering side. Capacitance change: Within ± 10% of the initial capacitance value (※3) tan δ: 130% or less than the initial specified value ESR (※1): 130% or less than the initial specified value Leakage current (※2): Less than or equal to the initial specified value
Marking	Navy blue print on the case top

※1 ESR should be measured at both of the terminal ends closest to the capacitor body.
※2 Conditioning : If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.
※3 Initial value : The value before test of examination of resistance to soldering.

■Dimensions



(mm)

Size	φ8 × 9L	φ8 × 12L	φ10 × 13L
φD	8.0	8.0	10.0
L	8.5	11.5	12.5
P	3.5	3.5	5.0
φd	0.6	0.6	0.6

Voltage

V	16	20	25	35	50
Code	C	D	E	V	H

Please refer to page 20 about the end seal configuration.

Type numbering system (Example : 35V 39μF)

1	2	3	4	5	6	7	8	9	10	11	12
P	L	X	1	V	3	9	0	M	C	L	1

- 12: Size code
- 10–11: Configuration
- 9: Capacitance tolerance (±20%)
- 6–8: Rated capacitance (39μF)
- 4–5: Rated voltage (35V)
- 3: Series name
- 1–2: Type

●Dimension table in next page.

LX series

■Standard Ratings

Rated Voltage (V)(code)	Surge Voltage (V)	Rated Capacitance (μF)	Case Size φD × L (mm)	tan δ	Leakage Current (μA)	ESR (mΩ) (at 100kHz 20°C)	Rated Ripple (mArms)		Part Number
							≦105℃ (*3)	105℃< ≦125℃ (*3)	
16 (1C)	18.4	150	8 × 9	0.12	480	26	2100	810	PLX1C151MCL1
		220	8 × 12	0.12	704	25	2400	930	PLX1C221MDL1
		390	10 × 13	0.12	1248	23	2900	1130	PLX1C391MDL1
20 (1D)	23.0	120	8 × 9	0.12	480	27	2000	800	PLX1D121MCL1
		150	8 × 12	0.12	600	26	2300	910	PLX1D151MDL1
		270	10 × 13	0.12	1080	24	2800	1110	PLX1D271MDL1
25 (1E)	28.7	82	8 × 9	0.12	410	28	2000	780	PLX1E820MCL1
		120	8 × 12	0.12	600	27	2300	890	PLX1E121MDL1
		180	10 × 13	0.12	900	25	2800	1080	PLX1E181MDL1
35 (1V)	40.2	39	8 × 9	0.12	273	33	1800	720	PLX1V390MCL1
		56	8 × 12	0.12	392	31	2100	830	PLX1V560MDL1
		100	10 × 13	0.12	700	28	2700	1040	PLX1V101MDL1
50 (1H)	57.5	22	8 × 9	0.12	220	35	1800	700	PLX1H220MCL1
		27	8 × 12	0.12	270	33	2000	810	PLX1H270MDL1
		47	10 × 13	0.12	470	29	2600	1020	PLX1H470MDL1

(*3) Ambient temperature of a capacitor

Rated ripple current (mArms) at 105°C 100kHz

- Please refer to page 20, 21, 22 about the formed or taped product spec.
- Please refer to page 3 for the minimum order quantity.