

**LXJ Series**

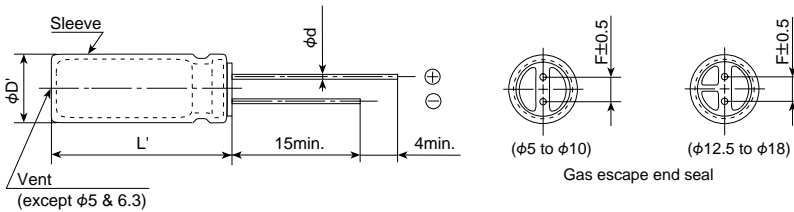
- Low impedance
- Endurance with ripple current: 105°C 2000 to 5000 hours
- Solvent-proof type (see PRECAUTIONS AND GUIDELINES)



◆ SPECIFICATIONS

Items	Characteristics	
Category	-55 to +105°C	
Temperature Range		
Rated Voltage Range	6.3 to 50V <sub>dc</sub>	
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)	
Leakage Current	I=0.03CV or 4μA, whichever is greater. (at 20°C after 1 minute) I=0.01CV or 3μA, whichever is greater. (at 20°C after 2 minutes) Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V)	
Dissipation Factor (tanδ)	Rated voltage (V <sub>dc</sub> )	6.3V 10V 16V 25V 35V 50V
	tanδ	0.22 0.19 0.16 0.14 0.12 0.10
	When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase. (at 20°C, 120Hz)	
Low Temperature Characteristics	Capacitance change ΔC(-55°C/20°C)	0.7min.
	Max. impedance ratio(-55°C/20°C)	3max. (at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for the specified period of time at 105°C.	
	Time	φ5 & φ6.3 : 2000hours φ8 & φ10 : 3000hours φ12.5 and larger : 5000hours
	Capacitance change	≤±20% of the initial value
	D.F. (tanδ)	≤200% of the initial specified value
	Leakage current	≤The initial specified value
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 105°C without voltage applied.	
	Capacitance change	≤±20% of the initial value
	D.F. (tanδ)	≤200% of the initial specified value
	Leakage current	≤The initial specified value

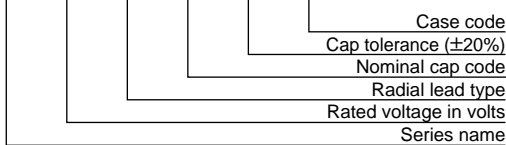
◆ DIMENSIONS (Radial Lead Type=VB) [mm]



φD	5	6.3	8	10	12.5	16	18
φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φD'	φD+0.5max.						
L'	L+1.5max.						

◆ PART NUMBERING SYSTEM

LXJ 16 VB 2200 M K30



Capacitance	Code
4.7μF	4R7
10μF	10
100μF	100
2200μF	2200

## ◆STANDARD RATINGS

φDXL (mm)	Items Case code	V <sub>dc</sub>															
		6.3			10			16			25						
		Capacitance (μF)	Impedance (Ω <sub>max</sub> /100kHz)		Rated ripple current (mArms/ 105°C 100kHz)	Capacitance (μF)	Impedance (Ω <sub>max</sub> /100kHz)		Rated ripple current (mArms/ 105°C 100kHz)	Capacitance (μF)	Impedance (Ω <sub>max</sub> /100kHz)		Rated ripple current (mArms/ 105°C 100kHz)				
	20°C	-10°C		20°C	-10°C		20°C	-10°C		20°C	-10°C						
5X11.5	E11	120	1.1	3.3	165	82	1.1	3.3	165	56	1.1	3.3	165	39	1.1	3.3	165
5X15	E15	150	1.0	3.0	180	120	1.0	3.0	180	82	1.0	3.0	180	56	1.0	3.0	180
6.3X11.5	F11	220	0.55	1.6	255	180	0.55	1.6	255	120	0.55	1.6	255	82	0.55	1.6	255
6.3X15	F15	330	0.41	1.2	330	270	0.41	1.2	330	180	0.41	1.2	330	120	0.41	1.2	330
8X12	H12	390	0.29	0.84	415	330	0.29	0.84	415	270	0.29	0.84	415	150	0.29	0.84	415
8X15	H15	560	0.25	0.75	495	470	0.25	0.75	495	330	0.25	0.75	495	220	0.25	0.75	495
8X20	H20	820	0.18	0.52	640	680	0.18	0.52	640	470	0.18	0.52	640	330	0.18	0.52	640
10X12.5	J12	470	0.16	0.40	635	390	0.16	0.40	635	270	0.16	0.40	635	180	0.16	0.40	635
10X16	J16	680	0.12	0.30	795	680	0.12	0.30	795	470	0.12	0.30	795	330	0.12	0.30	795
10X20	J20	1,200	0.088	0.22	1,060	1,000	0.088	0.22	1,060	680	0.088	0.22	1,060	470	0.088	0.22	1,060
10X25	J25	1,500	0.068	0.17	1,240	1,200	0.068	0.17	1,240	820	0.068	0.17	1,240	560	0.068	0.17	1,240
10X30	J30	2,200	0.059	0.15	1,450	1,500	0.059	0.15	1,450	1,200	0.059	0.15	1,450	820	0.059	0.15	1,450
12.5X20	K20	2,200	0.059	0.15	1,360	1,800	0.059	0.15	1,360	1,200	0.059	0.15	1,360	820	0.059	0.15	1,360
12.5X25	K25	2,700	0.045	0.11	1,700	2,200	0.045	0.11	1,700	1,500	0.045	0.11	1,700	1,000	0.045	0.11	1,700
12.5X30	K30	3,900	0.039	0.098	1,980	2,700	0.039	0.098	1,980	2,200	0.039	0.098	1,980	1,500	0.039	0.098	1,980
12.5X35	K35	4,700	0.033	0.083	2,230	3,300	0.033	0.083	2,230	2,700	0.033	0.083	2,230	1,800	0.033	0.083	2,230
12.5X40	K40	5,600	0.029	0.073	2,460	3,900	0.029	0.073	2,460	3,300	0.029	0.073	2,460	2,200	0.029	0.073	2,460
16X20	L20	3,900	0.043	0.11	1,770	3,300	0.043	0.11	1,770	2,200	0.043	0.11	1,770	1,500	0.043	0.11	1,770
16X25	L25	5,600	0.033	0.083	2,190	3,900	0.033	0.083	2,190	2,700	0.033	0.083	2,190	1,800	0.033	0.083	2,190
16X30	L30	6,800	0.029	0.073	2,510	4,700	0.029	0.073	2,510	3,900	0.029	0.073	2,510	2,700	0.029	0.073	2,510
16X35	L35	8,200	0.025	0.063	2,770	6,800	0.025	0.063	2,770	4,700	0.025	0.063	2,770	3,300	0.025	0.063	2,770
16X40	L40	10,000	0.021	0.053	3,110	8,200	0.021	0.053	3,110	5,600	0.021	0.053	3,110	3,900	0.021	0.053	3,110
18X20	M20	5,600	0.039	0.098	1,940	3,900	0.039	0.098	1,940	3,300	0.039	0.098	1,940	2,200	0.039	0.098	1,940
18X25	M25	6,800	0.030	0.075	2,350	4,700	0.030	0.075	2,350	3,900	0.030	0.075	2,350	2,700	0.030	0.075	2,350
18X30	M30	10,000	0.026	0.065	2,720	6,800	0.026	0.065	2,720	4,700	0.026	0.065	2,720	3,300	0.026	0.065	2,720
18X35	M35	12,000	0.023	0.058	3,050	8,200	0.023	0.058	3,050	6,800	0.023	0.058	3,050	3,900	0.023	0.058	3,050
18X40	M40	15,000	0.020	0.050	3,300	10,000	0.020	0.050	3,300	8,200	0.020	0.050	3,300	4,700	0.020	0.050	3,300

φDXL (mm)	Items Case code	V <sub>dc</sub>							
		35			50				
		Capacitance (μF)	Impedance (Ω <sub>max</sub> /100kHz)		Rated ripple current (mArms/ 105°C 100kHz)	Capacitance (μF)	Impedance (Ω <sub>max</sub> /100kHz)		Rated ripple current (mArms/ 105°C 100kHz)
	20°C	-10°C		20°C	-10°C		20°C	-10°C	
5X11.5	E11	27	1.1	3.3	165	18	1.2	3.6	165
5X15	E15	39	1.0	3.0	180	27	1.0	3.0	170
6.3X11.5	F11	56	0.55	1.6	255	39	0.57	1.7	255
6.3X15	F15	82	0.41	1.2	330	56	0.46	1.4	310
8X12	H12	120	0.29	0.84	415	68	0.29	0.90	415
8X15	H15	180	0.25	0.75	495	82	0.24	0.72	505
8X20	H20	220	0.18	0.52	640	120	0.20	0.58	605
10X12.5	J12	120	0.16	0.40	635	82	0.23	0.58	530
10X16	J16	220	0.12	0.30	795	120	0.17	0.43	675
10X20	J20	330	0.088	0.22	1,060	180	0.13	0.33	860
10X25	J25	390	0.068	0.17	1,240	220	0.096	0.24	1,060
10X30	J30	560	0.059	0.15	1,450	330	0.083	0.21	1,230
12.5X20	K20	560	0.059	0.15	1,360	330	0.083	0.21	1,170
12.5X25	K25	680	0.045	0.11	1,700	470	0.061	0.16	1,500
12.5X30	K30	1,000	0.039	0.098	1,980	560	0.056	0.14	1,680
12.5X35	K35	1,200	0.033	0.083	2,230	680	0.046	0.12	1,900
12.5X40	K40	1,500	0.029	0.073	2,460	820	0.041	0.10	2,120
16X20	L20	1,000	0.043	0.11	1,770	680	0.061	0.16	1,500
16X25	L25	1,200	0.033	0.083	2,190	820	0.046	0.12	1,880
16X30	L30	1,800	0.029	0.073	2,510	1,000	0.041	0.10	2,150
16X35	L35	2,200	0.025	0.063	2,770	1,200	0.037	0.093	2,320
16X40	L40	2,700	0.021	0.053	3,110	1,500	0.030	0.075	2,650
18X20	M20	1,500	0.039	0.098	1,940	820	0.056	0.14	1,660
18X25	M25	1,800	0.030	0.075	2,350	1,000	0.042	0.11	2,020
18X30	M30	2,200	0.026	0.065	2,720	1,500	0.037	0.093	2,340
18X35	M35	2,700	0.023	0.058	3,050	1,800	0.031	0.078	2,620
18X40	M40	3,300	0.020	0.050	3,300	2,200	0.029	0.073	2,790

Capacitance (μF)	Impedance (Ω <sub>max</sub> /100kHz)		Rated ripple current (mArms/ 105°C 100kHz)
	20°C	-10°C	
0.47	7.0	21.0	65
1.0	5.0	15.0	80
2.2	4.0	12.0	90
3.3	3.5	11.0	95
4.7	3.0	9.0	100
10	2.0	6.0	125

## ◆RATED RIPPLE CURRENT MULTIPLIERS

### ●Frequency Multipliers

Rated Voltage (V <sub>dc</sub> )	Case size φD (mm)	Frequency (Hz)			
		120	1k	10k	100k
6.3 to 10	5 to 8	0.65	0.83	0.95	1.00
	10 & 12.5	0.70	0.85	0.96	1.00
	16 & 18	0.85	0.92	0.97	1.00
16 to 25	5 to 8	0.55	0.76	0.91	1.00
	10 & 12.5	0.65	0.83	0.93	1.00
	16 & 18	0.70	0.87	0.96	1.00
35 to 50	5 to 8	0.40	0.66	0.85	1.00
	10 & 12.5	0.50	0.73	0.89	1.00
	16 & 18	0.60	0.81	0.94	1.00
50V <sub>dc</sub> (0.47 to 3.3μF)		0.20	0.66	0.90	1.00
50V <sub>dc</sub> (4.7 to 10μF)		0.40	0.76	0.93	1.00

The following case sizes are also available upon request : φ12.5×15mm, φ16×15mm, and φ18×15mm.