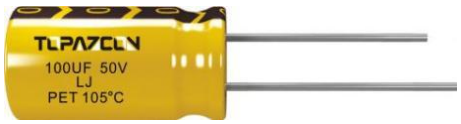
LJ Series

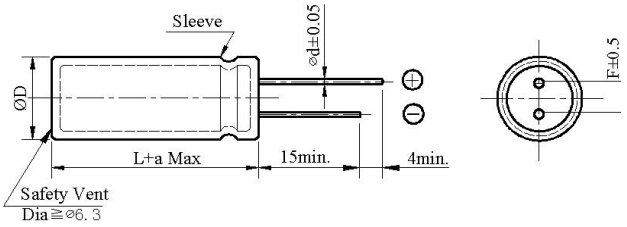
- **High performance, high reliability.**
- **Low impedance, high ripple current, long life**
- **Load life 5,000～7,000 hours at 105℃**
- **RoHS Compliant**



◆ SPECIFICATIONS

Item	Performance Characteristics
Category Temperature Range	-40 ~ +105℃
Working Voltage Range	6.3 ~ 120Vdc
Capacitance Range	10 ~ 10,000μF
Capacitance Tolerance	±20%　(at 20℃ and 120Hz)
Dissipation Factor (tanδ) (at 20℃, 120Hz)	Rated Voltage (V): 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 80 / 100 / 120 tanδ(Max): 0.22 / 0.19 / 0.16 / 0.14 / 0.12 / 0.10 / 0.09 / 0.08 / 0.08 / 0.12 The above values should be increased by 0.02 for every additional 1000μF
Leakage Current	I=0.01CV or 3μA whichever is greater I : Leakage current (μA)　C : Rated capacitance (μF)　V : Rated voltage (V)　Impress the rated voltage for 2 minutes
Low Temperature Characteristics Impedance Ratio(MAX)	Rated voltage (V): 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 80 / 100 / 120 Z(-25℃)/Z(+20℃): 5 / 4 / 4 / 3 / 2 / 2 / 2 / 2 / 2 / 3 Z(-40℃)/Z(+20℃): 8 / 6 / 6 / 5 / 4 / 3 / 3 / 3 / 3 / 6　(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 5,000 to 7,000 hours at 105°C. Capacitance change: ≦ ±25% of the initial value Dissipation factor(tanδ): ≦ 200% of the specified value Leakage current: ≦ specified value Size / Life time (hours): 6.3~10V / 16~120V ≤6.3 Φ: 5,000 / 5,000 ≥8 Φ: 6,000 / 7,000
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 20℃ after the rated voltage applied for 1,000 hours at 105℃ without voltage applied. Capacitance change: ≦ ±25% of the initial value Dissipation factor(tanδ): ≦ 200% of the specified value Leakage current: ≦ 200% of the specified value

◆ DIMENSIONS (mm)



ΦD	5	6.3	8	10	12.5	16	18
ΦD	ΦD +0.5 Max						
Φd	0.5	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
a	L+2.0 Max						

◆ PART NUMBER SYSTEM(Example : 50V 100μF)

E	L	J	1	H	1	0	1	M	0	8	1	2	0	0	Y

- Sleeve code(Yellow)
- Lead length code
- Lead forming Type code
- Size code(0812 : 8×12)
- Capacitance tolerance code(M:±20%)
- Capacitance code (100μF)
- Voltage code(50V)
- Series code(LJ)
- Category code(E)

LJ Series

◆ **Case size & Permissible rated ripple current**

Nominal capacitance (μF)	6.3V				10V			
	Case size ΦD×L (mm)	Impedance (Ωmax/100KHz)		Max. Rated ripple current @105℃ 100KHz (mA rms)	Case size ΦD×L (mm)	Impedance (Ωmax/100KHz)		Max. Rated ripple current @105℃ 100KHz (mA rms)
		20℃	-10℃			20℃	-10℃	
100	5×11	0.620	3.500	170	5×11	0.570	2.200	220
150	5×11	0.570	2.200	200	5×11	0.520	2.000	235
220	6.3×11	0.400	1.600	255	6.3×11	0.210	0.860	350
330	6.3×11	0.210	0.860	350	8×12	0.200	0.840	420
470	8×12	0.180	0.800	510	8×12	0.130	0.520	690
560	8×12	0.170	0.750	640	8×16	0.120	0.480	700
680	8×12	0.130	0.520	730	8×16	0.086	0.480	850
820	10×12	0.080	0.450	820	8×20	0.075	0.310	930
1000	8×16	0.086	0.480	880	10×20	0.069	0.290	1050
1200	8×20	0.069	0.270	1050	10×20	0.046	0.190	1400
1500	10×20	0.046	0.190	1450	10×25	0.042	0.180	1440
2200	10×20	0.042	0.180	1650	12.5×20	0.035	0.170	1910
2700	10×25	0.042	0.180	1750	12.5×20	0.030	0.120	1945
3300	12.5×20	0.040	0.160	1910	12.5×25	0.028	0.110	2230
3900	12.5×25	0.030	0.120	2230	12.5×30	0.024	0.100	2650
4700	12.5×30	0.028	0.110	2650	12.5×35	0.022	0.092	2880
5600	12.5×35	0.022	0.092	2880	12.5×40	0.020	0.084	2950
6800	12.5×40	0.020	0.084	3350	16×30	0.018	0.076	3450
8200	16×30	0.018	0.076	3450	16×35	0.016	0.074	3610
10000	16×35	0.016	0.074	3610	16×40	0.014	0.070	4100

Nominal capacitance (μF)	16V				25V			
	Case size ΦD×L (mm)	Impedance (Ωmax/100KHz)		Max. Rated ripple current @105℃ 100KHz (mA rms)	Case size ΦD×L (mm)	Impedance (Ωmax/100KHz)		Max. Rated ripple current @105℃ 100KHz (mA rms)
		20℃	-10℃			20℃	-10℃	
47	5×11	0.700	2.800	130	5×11	0.600	2.500	220
56	5×11	0.570	2.200	210	5×11	0.570	2.200	230
68	6.3×11	0.560	2.200	220	6.3×11	0.360	1.800	230
100	6.3×11	0.520	1.500	320	6.3×11	0.210	0.860	350
150	8×12	0.210	0.860	350	8×12	0.200	0.690	405
220	8×12	0.200	0.790	560	8×12	0.150	0.550	650
330	8×12	0.130	0.520	660	8×16	0.130	0.520	850
470	8×16	0.087	0.350	850	10×16	0.060	0.250	1250
560	8×20	0.085	0.340	865	10×16	0.078	0.330	1220
680	8×20	0.069	0.270	1050	10×20	0.046	0.1900	1400
820	10×16	0.058	0.230	1220	10×25	0.042	0.180	1650
1000	10×20	0.045	0.180	1400	12.5×20	0.038	0.160	1860
1200	10×25	0.042	0.170	1650	12.5×25	0.035	0.145	1936
1500	12.5×20	0.035	0.130	1950	12.5×25	0.033	0.120	2230
2200	12.5×25	0.027	0.089	2380	12.5×35	0.026	0.088	2880
2700	12.5×30	0.024	0.078	2650	12.5×35	0.020	0.065	2930
3300	12.5×35	0.020	0.065	2930	16×30	0.018	0.055	3450
3900	12.5×40	0.017	0.075	3350	16×35	0.016	0.074	3610
4700	16×30	0.018	0.050	3450	16×40	0.015	0.072	4080
5600	16×35	0.015	0.072	3610				
6800	16×40	0.013	0.038	4080				

LJ Series

◆ **Case size & Permissible rated ripple current**

Nominal capacitance (μF)	35V				50V			
	Case size ΦD×L (mm)	Impedance (Ωmax/100KHz)		Max. Rated ripple current @105℃ 100KHz (mA rms)	Case size ΦD×L (mm)	Impedance (Ωmax/100KHz)		Max. Rated ripple current @105℃ 100KHz (mA rms)
		20℃	-10℃			20℃	-10℃	
10	5×11	1.600	6.500	110	5×11	1.450	5.600	110
22	5×11	0.750	3.200	280	5×11	0.850	3.600	288
33	5×11	0.580	2.300	310	6.3×11	0.480	1.700	305
47	6.3×11	0.480	1.800	350	6.3×11	0.400	1.500	330
68	8×12	0.210	0.870	390	8×12	0.280	1.100	380
100	8×12	0.200	0.850	630	8×12	0.220	0.880	620
150	8×12	0.130	0.520	660	8×16	0.200	0.850	880
220	8×16	0.117	0.440	880	10×16	0.150	0.650	1030
330	10×12	0.090	0.380	1300	10×20	0.120	0.520	1350
470	10×16	0.082	0.340	1530	12.5×20	0.100	0.420	1550
560	10×20	0.065	0.270	1760	12.5×25	0.086	0.360	2150
680	10×25	0.060	0.250	2210	12.5×30	0.070	0.290	2250
820	12.5×20	0.052	0.220	2450	12.5×35	0.055	0.230	2710
1000	12.5×20	0.035	0.150	2780	16×25	0.040	0.170	3060
1200	12.5×35	0.032	0.130	3050	16×30	0.038	0.150	3120
1500	12.5×30	0.030	0.120	3160	16×35	0.035	0.150	3200
2200	16×30	0.028	0.115	3350	18×35	0.030	0.120	3480
2700	16×35	0.026	0.110	3420	18×40	0.028	0.110	3600
3300	16×40	0.024	0.100	3880				
3900	18×40	0.022	0.092	4100				

Nominal capacitance (μF)	63V				80V			
	Case size ΦD×L (mm)	Impedance (Ωmax/100KHz)		Max. Rated ripple current @105℃ 100KHz (mA rms)	Case size ΦD×L (mm)	Impedance (Ωmax/100KHz)		Max. Rated ripple current @105℃ 100KHz (mA rms)
		20℃	-10℃			20℃	-10℃	
10	5×11	2.850	9.300	95	6.3×11	2.400	8.000	110
15	5×11	2.200	7.700	145	6.3×11	2.000	7.000	160
22	6.3×11	1.850	7.200	170	8×12	1.500	6.600	180
33	6.3×11	1.000	4.500	250	8×12	1.000	4.500	280
47	8×12	0.800	3.500	300	8×16	0.750	3.100	320
56	8×12	0.500	2.000	450	8×16	0.480	1.800	430
68	8×12	0.480	1.800	500	8×16	0.400	1.680	480
100	8×16	0.430	1.900	620	10×12	0.300	1.250	550
220	10×20	0.160	0.730	850	10×20	0.150	0.720	800
330	12.5×25	0.100	0.450	1320	12.5×20	0.095	0.400	1150
470	12.5×25	0.095	0.400	1610	12.5×25	0.083	0.350	1320
560	12.5×35	0.083	0.350	1720	12.5×40	0.078	0.330	1440
680	12.5×40	0.071	0.300	1900	16×30	0.070	0.290	1650
820	16×30	0.065	0.250	2300	16×35	0.060	0.220	1750
1000	16×35	0.048	0.160	2900	16×40	0.045	0.150	2200
1200	18×35	0.045	0.150	3180	18×40	0.042	0.140	2680
1500	18×40	0.036	0.130	3350	18×45	0.035	0.125	2890
1800	18×45	0.035	0.125	3500				

LJ Series

◆ **Case size & Permissible rated ripple current**

Nominal capacitance (μF)	100V				120V			
	Case size ΦD×L (mm)	Impedance (Ωmax/100KHz)		Max. Rated ripple current @105℃ 100KHz (mA rms)	Case size ΦD×L (mm)	Impedance (Ωmax/100KHz)		Max. Rated ripple current @105℃ 100KHz (mA rms)
		20℃	-10℃			20℃	-10℃	
10	6.3×11	2.200	9.300	110	6.3×11	6.000	25.30	80
15	6.3×11	1.800	7.70	150	6.3×11	5.000	21.20	100
22	6.3×11	1.100	5.000	235	8×12	4.000	17.20	130
33	8×12	0.620	2.800	350	8×16	3.500	15.10	250
47	8×16	0.430	1.800	460	8×20	2.800	12.00	280
56	10×12	0.400	1.700	420	10×16	2.500	10.80	300
68	10×12	0.310	1.500	590	10×16	2.200	9.500	330
82	10×16	0.230	0.960	620	10×20	2.000	8.500	370
100	10×16	0.200	0.840	750	10×25	1.800	7.700	420
120	12.5×16	0.180	0.770	800	12.5×20	1.200	5.100	530
150	12.5×20	0.160	0.680	870	12.5×25	1.100	4.700	590
220	12.5×30	0.110	0.440	920	16×20	0.820	3.500	680
270	16×20	0.100	0.420	1050	16×25	0.600	2.500	750
330	16×30	0.095	0.340	1180	18×25	0.450	1.900	850
470	16×35	0.065	0.250	1810	18×30	0.350	1.500	930
560	16×40	0.058	0.180	2020	18×35	0.300	1.300	1030
680	18×35	0.050	0.160	2200	18×40	0.250	1.000	1150
820	18×40	0.036	0.130	2400				

◆ **RIPPLE CURRENT MULTIPLIERS**

Frequency Multipliers

Vdc	Cap(uF)	Frequency (Hz)			
		120	1K	10K	100K
6.3 ~ 120	6.8～180	0.40	0.75	0.90	1.00
	220～560	0.50	0.85	0.94	1.00
	680～1800	0.60	0.87	0.95	1.00
	2200～3900	0.75	0.90	0.95	1.00
	≥4700	0.85	0.95	0.98	1.00