

PL series Low ESR $\leq 9m\Omega$

Features

- ◆ Very Low ESR at high frequency range.
- ◆ Very Large permissible ripple current.



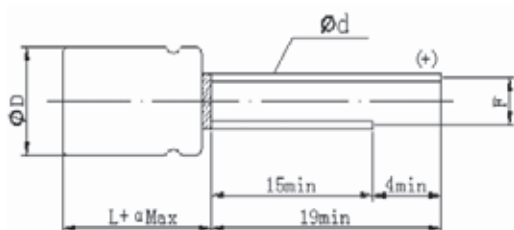
Specifications

Items	Performance Characteristics	
Operating Temperature Range	-55°C ~ +105°C	
Rated Voltage Range	2.5 ~ 16V DC	
Capacitance Range	180 to 3500 μ F	
Capacitance Tolerance	$\pm 20\%$ (120Hz , +20°C)	
Leakage Current (+20°C , max)	Not to exceed the values shown in Standard Ratings (Rated voltage applied, after 2 minutes at 20°C)	
Dissipation Factor ($\tan \delta$, at 20°C , 120Hz)	Not to exceed the values shown in Standard Ratings	
ESR (at 100KHz , 20°C)	Not to exceed the values shown in Standard Ratings	
Endurance 105°C , 2000h , at rated voltage	Capacitance Change	Within $\pm 20\%$ of the value before test
	Leakage current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified
Moisture Resistance Stored at 60°C , RH90~95% , 1000h	Capacitance Change	Within $\pm 20\%$ of the value before test
	Leakage Current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified

Frequency Coefficient for Ripple Current

Frequency	120Hz \leq freq. < 1KHz	1KHz \leq freq. < 10KHz	10KHz \leq freq. < 100KHz	100KHz \leq freq. < 300KHz
Coefficient	0.05	0.3	0.7	1

Diagram of Dimensions:(unit:mm)



ϕ D x L	ϕ D + 0.5	α	F ± 0.5	ϕ d ± 0.05
8x8	8.0	1.0	3.5	0.6
8x11.5	8.0	1.5	3.5	0.6
10x12.5	10.0	1.5	5.0	0.6

Standard Ratings

W.V. (V)	Cap(μF)	Size φ DxL(mm)	L.C. (μA,2min)	tg δ (120Hz,20°C)	ESR (mΩ),100KHz)	Maximum Permissible Ripple Current(mA,r.m.s)
2.5	560	8x8	280	0.08	9	6100
		8x11.5	280	0.08	9	6100
	680	8x8	340	0.08	9	6100
		8x11.5	340	0.08	9	6100
	820	8x8	410	0.08	9	6100
		8x11.5	410	0.08	9	6100
	1000	8x8	500	0.08	9	6100
		8x11.5	500	0.08	9	6100
	1200	8x8	600	0.08	9	6100
		8x11.5	600	0.08	9	6100
	1500	8x8	750	0.08	9	6100
		8x11.5	750	0.08	9	6100
	1800	8x8	900	0.08	9	6100
	2000	8x11.5	1000	0.08	9	6100
		10x12.5	1000	0.08	9	6640
2500	10x12.5	1250	0.08	9	6640	
2700	10x12.5	1350	0.08	9	6640	
3000	10x12.5	1500	0.08	9	6640	
3300	10x12.5	1650	0.08	9	6640	
3500	10x12.5	1750	0.08	9	6640	
4	560	8x8	224	0.08	9	6100
		8x11.5	225	0.08	9	6100
	680	8x8	272	0.08	9	6100
		8x11.5	272	0.08	9	6100
	820	8x8	328	0.08	9	6100
		8x11.5	328	0.08	9	6100
	1000	10x12.5	328	0.08	9	6100
		8x8	800	0.08	9	6100
	1200	8x11.5	800	0.08	9	6100
		8x8	960	0.08	9	6100
	1500	8x11.5	860	0.08	9	6100
		10x12.5	860	0.08	9	6640
1800	8x11.5	1200	0.08	9	6100	
	10x12.5	1200	0.08	9	6640	
2000	8x11.5	1440	0.08	9	6500	
2500	10x12.5	1600	0.08	9	6640	
6.3	180	10x12.5	1500	0.08	9	6640
		8x8	226.8	0.07	9	6100
	220	8x11.5	226.8	0.07	9	6100
		8x8	277	0.07	9	6100
	270	8x11.5	277	0.07	9	6100
		8x8	340.2	0.07	9	6100
	330	8x11.5	340.2	0.07	9	6100
		8x8	416	0.07	9	6100
	390	8x11.5	416	0.07	9	6100
		8x8	491.4	0.08	9	6100
	470	8x11.5	491.4	0.08	9	6100
		8x8	592	0.08	9	6100
560	8x11.5	592	0.08	9	6100	
	8x8	705.6	0.08	9	6100	
680	8x11.5	705.6	0.08	9	6100	
	8x8	428.4	0.08	9	6100	
		8x11.5	428.4	0.08	9	6100

Ripple Current(mA,rms)at 105°C,100KHz

W.V. (V)	Cap(μ F)	Size ϕ DxL(mm)	L.C. (μ A,2min)	tg δ (120Hz,20°C)	ESR (m Ω),100KHz)	Maximum Permissible Ripple Current(mA,r.m.s)
6.3	820	8x8	516.6	0.10	9	6100
		8x11.5	514.6	0.10	9	6100
	1000	8x8	630	0.10	9	6100
		8x11.5	630	0.10	9	6100
		10x12.5	630	0.10	9	6640
	1200	8x8	756	0.10	9	6100
		8x11.5	756	0.10	9	6100
		10x12.5	756	0.10	9	6640
	1500	8x11.5	945	0.10	9	6100
10x12.5		945	0.10	9	6640	
2000	10x12.5	1260	0.10	9	6640	
2200	10x12.5	1336	0.10	9	6640	
2500	10x12.5	1575	0.10	9	6640	
10	180	8x8	360	0.07	9	5600
		8x11.5	360	0.07	9	6100
	220	8x8	440	0.08	9	5600
		8x11.5	440	0.08	9	6100
	270	8x8	540	0.08	9	5600
		8x11.5	540	0.08	9	6100
	330	8x8	660	0.08	9	5600
		8x11.5	660	0.08	9	6100
	390	8x8	780	0.08	9	5600
		8x11.5	780	0.08	9	6100
	470	8x8	940	0.08	9	5600
		8x11.5	940	0.08	9	6100
	560	8x8	560	0.10	9	5600
		8x11.5	560	0.10	9	6100
	680	8x8	680	0.10	9	5600
		8x11.5	680	0.10	9	5600
		10x12.5	680	0.10	9	6100
	820	8x11.5	820	0.10	9	5600
10x12.5		820	0.10	9	6100	
1000	8x11.5	1000	0.10	9	5600	
	10x12.5	1000	0.10	9	6100	
1200	10x12.5	1200	0.10	9	6100	
1500	10x12.5	1500	0.10	9	6100	
16	180	8x11.5	576	0.08	9	5600
	220	8x11.5	704	0.08	9	5600
	270	8x8	864	0.08	9	5600
		8x11.5	864	0.08	9	5600
	330	8x8	528	0.08	9	5600
		8x11.5	528	0.08	9	5600
		10x12.5	528	0.08	9	6100
	390	8x11.5	624	0.08	9	5600
		10x12.5	624	0.08	9	6100
	470	8x11.5	752	0.10	9	5600
		10x12.5	752	0.10	9	6100
	560	8x11.5	896	0.10	9	5600
10x12.5		896	0.10	9	6100	
680	10x12.5	1000	0.10	9	6100	
820	10x12.5	1280	0.10	9	6100	
1000	10x12.5	1600	0.10	9	6100	

Ripple Current(mA,rms)at 105°C,100KHz