

ZLS SERIES

105°C Miniaturized, Low Impedance

•Load Life : 105°C 6000 hours.

RoHS
compliance



◆SPECIFICATIONS

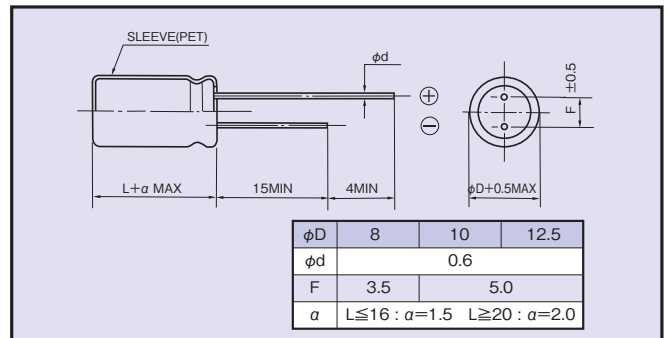
Items	Characteristics																			
Category Temperature Range	-40~+105℃																			
Rated Voltage Range	10~35Vdc																			
Capacitance Tolerance	±20% (20℃,120Hz)																			
Leakage Current(MAX)	I=0.01CV MAX. (After 2 minutes) I=Leakage Current(μA) C=Capacitance(μF) V=Rated Voltage(Vdc)																			
Dissipation Factor(MAX) (tanδ)	<table border="1"><tr><td>Rated Voltage (Vdc)</td><td>10</td><td>16</td><td>25</td><td>35</td></tr><tr><td>tanδ</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td></tr></table> (20℃,120Hz) When capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.					Rated Voltage (Vdc)	10	16	25	35	tanδ	0.19	0.16	0.14	0.12					
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Endurance	After applying rated voltage with rated ripple current for 6000 hours at 105℃, the capacitors shall meet the following requirements. <table border="1"><tr><td>Capacitance Change</td><td colspan="4">Within ±25% of the initial value.(10V:±30%)</td></tr><tr><td>Dissipation Factor</td><td colspan="4">Not more than 200% of the specified value.</td></tr><tr><td>Leakage Current</td><td colspan="4">Not more than the specified value.</td></tr></table>					Capacitance Change	Within ±25% of the initial value.(10V:±30%)				Dissipation Factor	Not more than 200% of the specified value.				Leakage Current	Not more than the specified value.			
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1"><tr><td>Rated Voltage (Vdc)</td><td>10</td><td>16</td><td>25</td><td>35</td></tr><tr><td>Z(-25℃)/Z(20℃)</td><td>2</td><td>2</td><td>2</td><td>2</td></tr><tr><td>Z(-40℃)/Z(20℃)</td><td>3</td><td>3</td><td>3</td><td>3</td></tr></table> (120Hz)					Rated Voltage (Vdc)	10	16	25	35	Z(-25℃)/Z(20℃)	2	2	2	2	Z(-40℃)/Z(20℃)	3	3	3	3
Rated Voltage (Vdc)	10	16	25	35																
Z(-25℃)/Z(20℃)	2	2	2	2																
Z(-40℃)/Z(20℃)	3	3	3	3																

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency (Hz)	120	1k	10k	100k≤
220~270µF	0.50	0.73	0.92	1.00
330~680µF	0.55	0.77	0.94	1.00
820~1800µF	0.60	0.80	0.96	1.00
2200~5600µF	0.70	0.85	0.98	1.00

◆DIMENSIONS

(mm)



◆PART NUMBER

□□□ **ZLS** □□□□□ **M** □□□ □□ **DxL**
 Rated Voltage Series Capacitance Capacitance Tolerance Option Lead Forming Case Size

◆OPTION

	Code
PET Sleeve	EFC

◆STANDARD SIZE

Rated Voltage (Vdc)	Capacitance (μ F)	Size ϕ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
				20°C, 100kHz	−10°C, 100kHz
10	680	8×11.5	900	0.062	0.19
	1000	8×16	1210	0.048	0.15
	1000	10×12.5	1240	0.045	0.14
	1500	8×20	1410	0.033	0.11
	1500	10×16	1650	0.032	0.10
	1800	10×20	1960	0.020	0.060
	2200	10×23	2250	0.018	0.054
	3300	12.5×20	2480	0.017	0.043
	3900	12.5×25	2900	0.015	0.038
	4700	12.5×30	3450	0.013	0.033
16	5600	12.5×35	3570	0.012	0.031
	470	8×11.5	900	0.062	0.19
	680	8×16	1210	0.048	0.15
	680	10×12.5	1240	0.045	0.14
	1000	8×20	1410	0.033	0.11
	1000	10×16	1650	0.032	0.10
	1500	10×20	1960	0.020	0.060
	1800	10×23	2250	0.018	0.054
	2200	10×25	2500	0.017	0.051
	2200	12.5×20	2480	0.017	0.043
	2700	12.5×25	2900	0.015	0.038
	3300	12.5×30	3450	0.013	0.033
25	3900	12.5×35	3570	0.012	0.031
	330	8×11.5	900	0.062	0.19
	390	8×16	1210	0.048	0.15
	470	10×12.5	1240	0.045	0.14
	560	8×20	1410	0.033	0.11
	680	10×16	1650	0.032	0.10
	820	10×20	1960	0.020	0.060
	1000	10×20	1960	0.020	0.060
	1000	10×23	2250	0.018	0.054
	1500	12.5×20	2480	0.017	0.043
	1800	12.5×25	2900	0.015	0.038
	2200	12.5×30	3450	0.013	0.033
35	2700	12.5×35	3570	0.012	0.031
	220	8×11.5	900	0.062	0.19
	270	8×16	1210	0.048	0.15
	330	10×12.5	1240	0.045	0.14
	390	8×20	1410	0.033	0.11
	470	10×16	1650	0.032	0.10
	560	10×20	1960	0.020	0.060
	680	10×23	2250	0.018	0.054
	1000	12.5×20	2480	0.017	0.043
	1200	12.5×25	2900	0.015	0.038
	1500	12.5×30	3450	0.013	0.033
	1800	12.5×35	3570	0.012	0.031