

ZLS SERIES

NEW

105°C Miniaturized, Low Impedance.

◆FEATURES

- Achieved endurance improvement and miniaturization of ZL series, as well as high frequency impedance reduction.
- Load Life : 105°C 6000 hours.
- RoHS compliance.



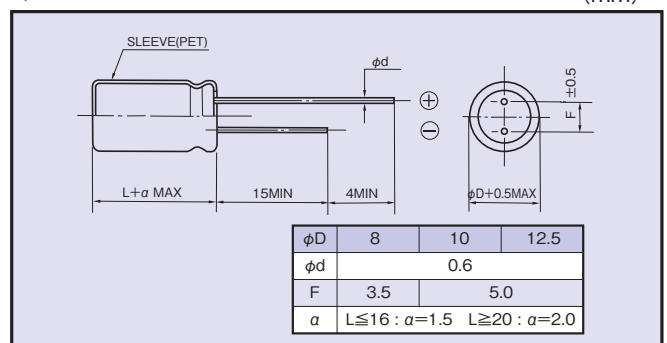
◆SPECIFICATIONS

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

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency (Hz)		120	1k	10k	100k≤
Coefficient	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



◆OPTION

	Code
PET Sleeve	EFC

◆PART NUMBER

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

**◆STANDARD SIZE**

Rated Voltage (V·DC)	capacitance ( $\mu$ F)	Size $\phi$ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance ( $\Omega$ MAX)	
				20°C, 100kHz	-10°C, 100kHz
10 (1A)	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
	5600	12.5×35	3570	0.012	0.031
16 (1C)	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
	3900	12.5×35	3570	0.012	0.031
25 (1E)	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
	2700	12.5×35	3570	0.012	0.031
	35 (1V)	220	8×11.5	900	0.062
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