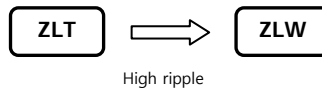


ZLW series

- Low impedance
- High-Ripple current
- RoHS compliant
- Solvent proof

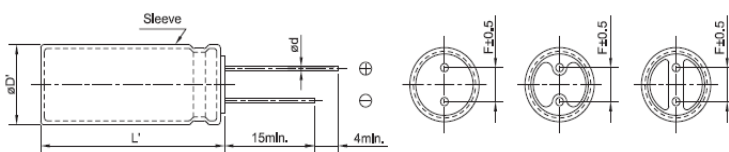
- 105°C 4000~7000Hrs assured.
- Low impedance, Long life
- For SMPS, IP-Board, Adaptor
- RoHS compliant
- Halogen-free capacitors are also available.



Specifications

Item	Characteristics												
Rated Voltage Range	6.3 ~ 35Vdc												
Operating Temperature Range	-55 ~ +105°C												
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)												
Leakage Current	I=0.01CV(μA) or 3μA, whichever is greater. Where, I:Max. Leakage current(μA), C:Nominal capacitance(μF), V: Rated voltage(Vdc)(at 20°C, 2 minutes)												
Dissipation Factor(Tanδ)	<table border="1"> <tr> <td>Rated Voltage(Vdc)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td>Tanδ(Max.)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> </table> <p>If the capacitance exceeds 1,000uF, then Tanδ will be added 0.02 every 1000uF increase.(at 20°C, 120Hz)</p>	Rated Voltage(Vdc)	6.3	10	16	25	35	Tanδ(Max.)	0.22	0.19	0.16	0.14	0.12
Rated Voltage(Vdc)	6.3	10	16	25	35								
Tanδ(Max.)	0.22	0.19	0.16	0.14	0.12								
Temperature characteristics (Max,impedance ratio)	<table border="1"> <tr> <td>Rated Voltage(Vdc)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td>Z(-55°C)/Z(20°C)</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table> <p>(at 120Hz)</p>	Rated Voltage(Vdc)	6.3	10	16	25	35	Z(-55°C)/Z(20°C)	4	3	3	3	3
Rated Voltage(Vdc)	6.3	10	16	25	35								
Z(-55°C)/Z(20°C)	4	3	3	3	3								
Load life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 5,000hrs at 105°C.(10∅=4,000hrs, 12.5∅=5,000hrs) Capacitance change ≤±20%of the initial value Tan δ ≤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 1,000 hours at 105°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes at least 24 hours and not more than 48 hours before the measurements. Capacitance change ≤±20% of the initial value Tanδ ≤200% of the initial specified value Leakage current ≤200%The initial specified value												

Dimensions

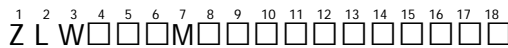


Unit(mm)

∅D	10	12.5
∅d	0.6	0.6
F	5.0	5.0
∅D'	∅D+0.5max.	
L'	L+1.5max.	

- Printed black color letter on PET green sleeve

Code numbering system



- Taping, Cutting
- Terminal type
- Size (8X11.5: F11)
- Capacitance
- Capacitance tolerance(M: ±20%, K: ±10%, V : -10~20%)
- Working voltage(ex. 6.3V→6R3, 10V→010,63V→063)
- Series name

∅10	G
∅12.5	X

ZLW series

Standard Ratings

Note1) Imp. =  $\Omega_{max}/20^{\circ}C, 100kHz$  2) Ripple current =  $mArms/105^{\circ}C, 100kHz$

WV (Vdc)	Cap (uF)	Size ØxL(mm)	Imp. <sup>1)</sup>	Ripple <sup>2)</sup>	Code No
6.3	1,500	10 x 12.5	0.063	960	ZLW6R3□152G13CS□□□
	2,200	10 x 16	0.049	1,240	ZLW6R3□222G16CS□□□
	3,300	10 x 20	0.035	1,550	ZLW6R3□332G20CS□□□
	3,900	10 x 25	0.033	1,740	ZLW6R3□392G25CS□□□
	4,700	12.5 x 20	0.029	1,890	ZLW6R3□472X20CS□□□
	5,600	12.5 x 25	0.022	2,350	ZLW6R3□562X25CS□□□
	6,800	16 x 20	0.026	2,330	ZLW6R3□682J20CS□□□
	8,200	18 x 20	0.025	2,640	ZLW6R3□822K20CS□□□
	10,000	16 x 25	0.019	2,760	ZLW6R3□103J20CS□□□
12,000	18 x 25	0.018	2,850	ZLW6R3□123K25CS□□□	
10	1,000	10 x 12.5	0.063	960	ZLW010□102G13CS□□□
	1,800	10 x 16	0.049	1,240	ZLW010□182G16CS□□□
	2,200	10 x 20	0.035	1,550	ZLW010□222G20CS□□□
	2,700	10 x 25	0.033	1,740	ZLW010□272G25CS□□□
	3,900	12.5 x 20	0.029	1,890	ZLW010□392X20CS□□□
	4,700	12.5 x 25	0.022	2,350	ZLW010□472X25CS□□□
	4,700	16 x 20	0.026	2,330	ZLW010□472J20CS□□□
	6,800	18 x 20	0.025	2,640	ZLW010□682K20CS□□□
	8,200	16 x 25	0.019	2,760	ZLW010□682J20CS□□□
8,200	18 x 25	0.018	2,850	ZLW010□822K25CS□□□	
16	820	10 x 12.5	0.063	960	ZLW016□821G13CS□□□
	1,200	10 x 16	0.049	1,240	ZLW016□122G16CS□□□
	1,800	10 x 20	0.035	1,550	ZLW016□182G20CS□□□
	2,200	10 x 25	0.033	1,740	ZLW016□222G25CS□□□
	2,700	12.5 x 20	0.029	1,890	ZLW016□272X20CS□□□
	3,300	12.5 x 25	0.022	2,350	ZLW016□332X25CS□□□
	3,900	16 x 20	0.026	2,330	ZLW016□392J20CS□□□
	5,600	18 x 20	0.025	2,640	ZLW016□562K20CS□□□
	5,600	16 x 25	0.019	2,760	ZLW016□562J20CS□□□
8,200	18 x 25	0.018	2,850	ZLW016□822K25CS□□□	
25	470	10 x 12.5	0.063	960	ZLW025□471G13CS□□□
	820	10 x 16	0.049	1,240	ZLW025□821G16CS□□□
	1,200	10 x 20	0.035	1,550	ZLW025□123G20CS□□□
	1,500	10 x 25	0.033	1,740	ZLW025□152G25CS□□□
	1,800	12.5 x 20	0.029	1,890	ZLW025□182X20CS□□□
	2,700	12.5 x 25	0.022	2,350	ZLW025□272X25CS□□□
	2,700	16 x 20	0.026	2,330	ZLW025□272J20CS□□□
	3,300	18 x 20	0.025	2,640	ZLW025□332K20CS□□□
	3,900	16 x 25	0.019	2,760	ZLW025□392J20CS□□□
4,700	18 x 25	0.018	2,850	ZLW025□472K25CS□□□	
35	330	10 x 12.5	0.063	960	ZLW035□331G13CS□□□
	680	10 x 16	0.049	1,240	ZLW035□681G16CS□□□
	820	10 x 20	0.035	1,550	ZLW035□821G20CS□□□
	1,200	10 x 25	0.033	1,740	ZLW035□122G25CS□□□
	1,500	12.5 x 20	0.029	1,890	ZLW035□152X20CS□□□
	1,800	12.5 x 25	0.022	2,350	ZLW035□182X25CS□□□
	1,800	16 x 20	0.026	2,330	ZLW035□182J20CS□□□
	2,200	18 x 20	0.025	2,640	ZLW035□222K20CS□□□
	2,700	16 x 25	0.019	2,760	ZLW035□272J20CS□□□
3,300	18 x 25	0.018	2,850	ZLW035□332K25CS□□□	

Rated ripple current multipliers

Capacitance (uF)	Frequency (Hz)			
	120	1K	10K	100K
~ 560	0.50	0.85	0.94	1.00
680 ~ 1,800	0.60	0.87	0.95	1.00
2,200 ~ 3,900	0.75	0.90	0.95	1.00
4,700 ~ 12,000	0.85	0.95	0.98	1.00