

SNAP MOUNT TYPE ALUMINUM ELECTROLYTIC CAPACITORS

NEW!

ZL Series

Useful of 5,000 hours at 105°C (Warranty of 3,000 hours at 105°C)

• Conform RoHS

Features

• The ZL type is the miniaturization products of 3000 hours.



Product Specifications

Items	Specifications
Temperature range	-25°C ~ +105°C
Rated voltage	400 ~ 500V.DC
Capacitance tolerance	±20% (20°C, 120Hz)
Leakage current	0.02CV (µA) or 3(mA), whichever is smaller or less (20°C, after 5 minutes) [C = nominal capacitance (µF), V = rated voltage (V)]
Dissipation factor	Less than the value specified in the standard products table. (20°C, 120Hz)
Permissible ripple current	As specified in the standard products table. (105°C, 120Hz)
Endurance	After 105°C, 3000h, rated voltage with specified ripple current application Capacitance change : Within ±20% of initial value Dissipation factor : Not more than 200% of initial value specified Leakage current : Not more than initial value specified
Others	JIS C 5101-4.

Ripple current correction coefficient

Temperature (°C)	60	70	85	105	
Correction coefficient	1.9	1.7	1.4	1.0	
Frequency (Hz)	50/60	120	300	1k	≥10K
Correction coefficient	0.7	1.0	1.1	1.3	1.4

A continuous load should be avoided over 10 Arms at the terminal in accordance with the permissible current.

Please consult us when the ripple voltage exceeds 70Vp-p.

Product code : (Example) ZL Series 400V 120µF ±20%

ZL 2G 121 M C X S2 WP EC



Refer to page 66-67 for other terminal shape available on request.

Standard Products Table

Rated Voltage (V. DC)	Capacitance (µF)	Case size øDXL(mm)	tanδ 20°C,120Hz	Ripple current (Arms) 105°C,120Hz	ESR(typ.) 20°C,100Hz (mΩ)	Product name
400	120	22×25	0.20	0.75	800	ZL2G121MCXS2WPEC
	150	22×30	0.20	0.88	640	ZL2G151MCXS3WPEC
	180	22×35	0.20	1.01	540	ZL2G181MCXS4WPEC
		25×25	0.20	0.95	540	ZL2G181MCYS2WPEC
	220	22×40	0.20	1.17	440	ZL2G221MCXS5WPEC
		25×30	0.20	1.12	440	ZL2G221MCYS3WPEC
	270	22×45	0.20	1.34	360	ZL2G271MCXS6WPEC
		25×35	0.20	1.30	360	ZL2G271MCYS4WPEC
		30×25	0.20	1.23	360	ZL2G271MCZS2WPEC
	330	22×50	0.20	1.53	290	ZL2G331MCXS7WPEC
		25×40	0.20	1.49	290	ZL2G331MCYS5WPEC
		30×30	0.20	1.43	290	ZL2G331MCZS3WPEC
		35×25	0.20	1.41	290	ZL2G331MCAS2WPEC
	390	25×45	0.20	1.68	250	ZL2G391MCYS6WPEC
		30×35	0.20	1.63	250	ZL2G391MCZS4WPEC
	470	30×40	0.20	1.86	210	ZL2G471MCZS5WPEC
		35×30	0.20	1.77	210	ZL2G471MCAS3WPEC
	560	30×45	0.20	2.11	180	ZL2G561MCZS6WPEC
35×35		0.20	2.02	180	ZL2G561MCAS4WPEC	
680	35×40	0.20	2.31	150	ZL2G681MCAS5WPEC	
820	35×50	0.20	2.69	120	ZL2G821MCAS7WPEC	

Rated Voltage (V. DC)	Capacitance (µF)	Case size øDXL(mm)	tanδ 20°C,120Hz	Ripple current (Arms) 105°C,120Hz	ESR(typ.) 20°C,100Hz (mΩ)	Product name
420	100	22×25	0.20	0.71	1020	ZL420V101MCXS2WPEC
		22×30	0.20	0.92	680	ZL420V151MCXS3WPEC
	150	25×25	0.20	0.90	680	ZL420V151MCYS2WPEC
		22×35	0.20	1.05	570	ZL420V181MCXS4WPEC
	180	25×30	0.20	1.05	570	ZL420V181MCYS3WPEC
		22×40	0.20	1.22	470	ZL420V221MCXS5WPEC
	220	25×35	0.20	1.21	470	ZL420V221MCYS4WPEC
		30×25	0.20	1.15	470	ZL420V221MCZS2WPEC
		22×50	0.20	1.44	380	ZL420V271MCXS7WPEC
	270	25×40	0.20	1.40	380	ZL420V271MCYS5WPEC
		30×30	0.20	1.35	380	ZL420V271MCZS3WPEC
		35×25	0.20	1.38	380	ZL420V271MCAS2WPEC
	330	25×45	0.20	1.61	310	ZL420V331MCYS6WPEC
		30×35	0.20	1.56	310	ZL420V331MCZS4WPEC
	390	25×50	0.20	1.80	270	ZL420V391MCYS7WPEC
		30×40	0.20	1.76	270	ZL420V391MCZS5WPEC
		35×30	0.20	1.67	270	ZL420V391MCAS3WPEC
	470	30×45	0.20	2.00	220	ZL420V471MCZS6WPEC
		35×35	0.20	1.92	220	ZL420V471MCAS4WPEC
	560	30×50	0.20	2.25	190	ZL420V561MCZS7WPEC
		35×40	0.20	2.18	190	ZL420V561MCAS5WPEC
	680	35×45	0.20	2.48	150	ZL420V681MCAS6WPEC
	820	35×50	0.20	2.80	130	ZL420V821MCAS7WPEC

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ALUMINUM ELECTROLYTIC CAPACITORS

Rated Voltage (V. DC)	Capacitance (μF)	Case size øDXL (mm)	tanδ 20°C, 120Hz	Ripple current (Arms) 105°C, 120Hz	ESR (typ.) 20°C, 100Hz (mΩ)	Product name
450	100	22×25	0.20	0.71	1,020	ZL2W101MCXS2WPEC
	120	22×30	0.20	0.82	850	ZL2W121MCXS3WPEC
		25×25	0.20	0.81	850	ZL2W121MCYS2WPEC
	150	22×35	0.20	0.96	680	ZL2W151MCXS4WPEC
		22×40	0.20	1.10	570	ZL2W181MCXS5WPEC
	180	25×30	0.20	1.05	570	ZL2W181MCYS3WPEC
		30×25	0.20	1.06	570	ZL2W181MCZS2WPEC
		22×45	0.20	1.26	470	ZL2W221MCXS6WPEC
	220	25×35	0.20	1.21	470	ZL2W221MCYS4WPEC
		25×40	0.20	1.40	380	ZL2W271MCYS5WPEC
	270	30×30	0.20	1.35	380	ZL2W271MCZS3WPEC
		35×25	0.20	1.32	380	ZL2W271MCAS2WPEC
		25×50	0.20	1.66	310	ZL2W331MCYS7WPEC
	330	30×35	0.20	1.56	310	ZL2W331MCZS4WPEC
		35×30	0.20	1.54	310	ZL2W331MCAS3WPEC
		30×40	0.20	1.76	270	ZL2W391MCZS5WPEC
470	30×45	0.20	2.00	220	ZL2W471MCZS6WPEC	
	35×35	0.20	1.92	220	ZL2W471MCAS4WPEC	
560	35×40	0.20	2.18	190	ZL2W561MCAS5WPEC	
680	35×50	0.20	2.55	150	ZL2W681MCAS7WPEC	
500	56	22×25	0.20	0.48	1710	ZL2H560MCXS2WPEC
		22×30	0.20	0.56	1410	ZL2H680MCXS3WPEC
	68	25×25	0.20	0.55	1410	ZL2H680MCYS2WPEC
		22×35	0.20	0.64	1170	ZL2H820MCXS4WPEC
	82	25×30	0.20	0.64	1170	ZL2H820MCYS3WPEC
		22×40	0.20	0.74	960	ZL2H101MCXS5WPEC
	100	25×35	0.20	0.74	960	ZL2H101MCYS4WPEC
		30×25	0.20	0.66	960	ZL2H101MCZS2WPEC
		22×50	0.20	0.87	800	ZL2H121MCXS7WPEC
	120	25×40	0.20	0.84	800	ZL2H121MCYS5WPEC
		30×30	0.20	0.76	800	ZL2H121MCZS3WPEC
	150	25×45	0.20	0.97	640	ZL2H151MCYS6WPEC
		35×25	0.20	0.81	640	ZL2H151MCAS2WPEC
	180	25×50	0.20	1.10	540	ZL2H181MCYS7WPEC
		30×35	0.20	0.98	540	ZL2H181MCZS4WPEC
		35×30	0.20	0.93	540	ZL2H181MCAS3WPEC
	220	30×45	0.20	1.16	440	ZL2H221MCZS6WPEC
		35×35	0.20	1.07	440	ZL2H221MCAS4WPEC
	270	30×50	0.20	1.33	360	ZL2H271MCZS7WPEC
		35×40	0.20	1.23	360	ZL2H271MCAS5WPEC
330	35×45	0.20	1.41	290	ZL2H331MCAS6WPEC	
390	35×50	0.20	1.58	250	ZL2H391MCAS7WPEC	

Life time graph

Useful life depending on ambient temperature T_a and ripple current operating conditions I_r versus rated ripple current at 105°C, 120Hz.

