

LS series

- Downsized, longer life series
- Endurance: 3,000 hours at 85°C
- Non solvent-proof type
- RoHS Compliant

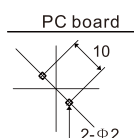
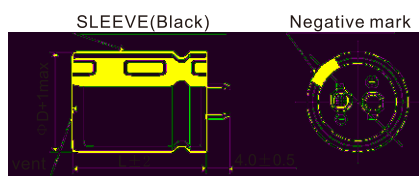


SPECIFICATIONS

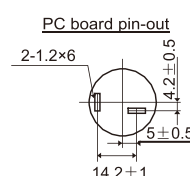
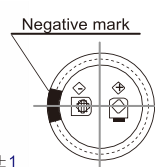
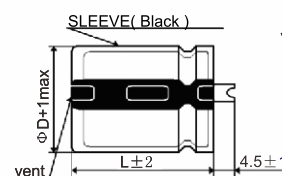
Items	Characteristics				
Category Temperature Range	-25~+85°C				
Rated Voltage Range	160~600V.DC				
Capacitance Tolerance	±20%(M) <div>(at 20°C, 120Hz)</div>				
Leakage Current	$I \leq 3 \sqrt{CV}$ Where, I:Max.leakage current (μA),C:Nominal capacitance (μF),V: Rated voltage (V) <div>(at 20°C after 5 minutes)</div>				
Dissipation Factor (tanδ)	Rated Voltage(V _{dc})	160 to 400	420 to 550	600	<div>(at 20°C, 120Hz)</div>
	tanδ (max.)	0.15	0.20	0.30	
Low Temperature Characteristics (Max. Impedance Ratio)	Rated Voltage(V _{dc})	160 to 400	420 to 550	600	<div>(at 120Hz)</div>
	Z(-25°C)/Z(+20°C)	4	8	10	
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after DC voltage plus the rated ripple current is applied for 3,000 hours at 85°C.				
	Capacitance Change	≤±20% of the initial value			
	D.F. (tanδ)	≤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 85 °C without voltage applied .				
	Capacitance Change	≤±15% of the initial value			
	D.F. (tanδ)	≤150% of the initial specified value			
	Leakage Current	≤200% of the initial specified value			

DIMENSIONS[mm]

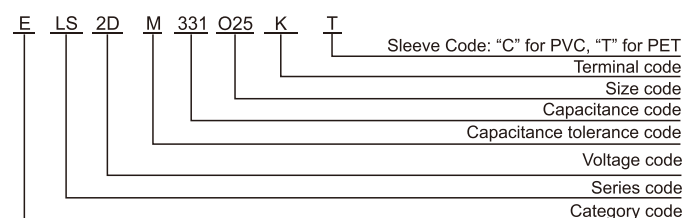
- Terminal Code : K (Φ22 to Φ35) : Standard



- Terminal Code : L (Φ35)



PART NUMBERING SYSTEM



RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Rated voltage(V _{dc}) \ Freq.(Hz)	120	1k	10k	100k
160~250	1.00	1.32	1.45	1.50
315~600	1.00	1.30	1.41	1.43

The endurance of capacitors is shortened with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

LS series

■ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/85°C, 120Hz)	Part Number
160(2C)	270	22×20	0.15	1.30	ELS2CM271O20KT
	330	22×25	0.15	1.55	ELS2CM331O25KT
	390	22×25	0.15	1.63	ELS2CM391O25KT
		25×20	0.15	1.62	ELS2CM391P20KT
	470	22×30	0.15	1.86	ELS2CM471O30KT
		25×25	0.15	1.86	ELS2CM471P25KT
	560	22×30	0.15	2.15	ELS2CM561O30KT
		25×25	0.15	2.15	ELS2CM561P25KT
		30×20	0.15	2.05	ELS2CM561Q20KT
	680	22×35	0.15	2.35	ELS2CM681O35KT
		25×30	0.15	2.33	ELS2CM681P30KT
		30×25	0.15	2.33	ELS2CM681Q25KT
		35×20	0.15	2.26	ELS2CM681R20KT
	820	22×40	0.15	2.68	ELS2CM821O40KT
		25×30	0.15	2.65	ELS2CM821P30KT
		30×25	0.15	2.64	ELS2CM821Q25KT
		35×20	0.15	2.49	ELS2CM821R20KT
	1000	22×45	0.15	3.02	ELS2CM102O45KT
		25×35	0.15	3.00	ELS2CM102P35KT
		30×30	0.15	3.96	ELS2CM102Q30KT
		35×25	0.15	3.13	ELS2CM102R25KT
	1200	22×50	0.15	3.47	ELS2CM122O50KT
		25×40	0.15	3.43	ELS2CM122P40KT
		30×30	0.15	3.41	ELS2CM122Q30KT
		35×25	0.15	3.40	ELS2CM122R25KT
	1500	25×50	0.15	3.96	ELS2CM152P50KT
		30×35	0.15	3.96	ELS2CM152Q35KT
		35×30	0.15	3.94	ELS2CM152R30KT
	1800	30×40	0.15	4.31	ELS2CM182Q40KT
		35×35	0.15	4.28	ELS2CM182R35KT
	2200	30×50	0.15	4.96	ELS2CM222Q50KT
		35×40	0.15	4.96	ELS2CM222R40KT
	2700	35×45	0.15	5.57	ELS2CM272R45KT
	3300	35×50	0.15	6.21	ELS2CM332R50KT
180(2L)	220	22×20	0.15	1.18	ELS2LM221O20KT
	330	22×25	0.15	1.77	ELS2LM331O25KT
		25×20	0.15	1.49	ELS2LM331P20KT
	390	22×25	0.15	1.84	ELS2LM391O25KT
		22×30	0.15	1.91	ELS2LM471O30KT
	470	25×25	0.15	2.08	ELS2LM471P25KT
		30×20	0.15	1.88	ELS2LM471Q20KT
	560	22×35	0.15	2.25	ELS2LM561O35KT
		25×25	0.15	2.25	ELS2LM561P25KT
		22×35	0.15	2.48	ELS2LM681O35KT
	680	25×30	0.15	2.50	ELS2LM681P30KT
		30×25	0.15	2.46	ELS2LM681Q25KT
		35×20	0.15	2.26	ELS2LM681R20KT
		22×40	0.15	2.86	ELS2LM821O40KT
	820	25×35	0.15	2.75	ELS2LM821P35KT
		30×25	0.15	2.69	ELS2LM821Q25KT
		22×50	0.15	3.10	ELS2LM102O50KT
		25×40	0.15	3.06	ELS2LM102P40KT
	1000	30×30	0.15	3.10	ELS2LM102Q30KT
		35×25	0.15	2.98	ELS2LM102R25KT
		25×45	0.15	3.63	ELS2LM122P45KT
		30×35	0.15	3.55	ELS2LM122Q35KT
	1200	35×30	0.15	3.49	ELS2LM122R30KT
		30×40	0.15	4.10	ELS2LM152Q40KT
		35×35	0.15	4.02	ELS2LM152R35KT
	1800	30×45	0.15	4.55	ELS2LM182Q45KT
		35×35	0.15	4.54	ELS2LM182R35KT
	2200	35×40	0.15	4.83	ELS2LM222R40KT
	2700	35×50	0.15	5.30	ELS2LM272R50KT

WV (Vdc)	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/85°C, 120Hz)	Part Number
200(2D)	220	22×20	0.15	1.18	ELS2DM221O20KT
	270	22×25	0.15	1.37	ELS2DM271O25KT
		25×20	0.15	1.35	ELS2DM271P20KT
	330	22×25	0.15	1.51	ELS2DM331O25KT
		25×20	0.15	1.49	ELS2DM331P20KT
	390	22×30	0.15	1.73	ELS2DM391O30KT
		25×25	0.15	1.71	ELS2DM391P25KT
		30×20	0.15	1.71	ELS2DM391Q20KT
	470	22×30	0.15	1.97	ELS2DM471O30KT
		25×25	0.15	1.95	ELS2DM471P25KT
		30×20	0.15	1.88	ELS2DM471Q20KT
		22×35	0.15	2.18	ELS2DM561O35KT
	560	25×30	0.15	2.15	ELS2DM561P30KT
		30×25	0.15	2.15	ELS2DM561Q25KT
		35×20	0.15	2.05	ELS2DM561R20KT
		22×40	0.15	2.48	ELS2DM681O40KT
	680	25×30	0.15	2.48	ELS2DM681P30KT
		30×25	0.15	2.48	ELS2DM681Q25KT
		35×20	0.15	2.36	ELS2DM681R20KT
		22×45	0.15	2.81	ELS2DM821O45KT
	820	25×35	0.15	2.79	ELS2DM821P35KT
		30×30	0.15	2.80	ELS2DM821Q30KT
		35×25	0.15	2.83	ELS2DM821R25KT
		22×50	0.15	3.28	ELS2DM102O50KT
	1000	25×40	0.15	3.28	ELS2DM102P40KT
		30×35	0.15	3.15	ELS2DM102Q35KT
		35×30	0.15	3.26	ELS2DM102R30KT
		25×45	0.15	3.61	ELS2DM122P45KT
	1200	30×35	0.15	3.61	ELS2DM122Q35KT
		35×30	0.15	3.57	ELS2DM122R30KT
		30×45	0.15	4.13	ELS2DM152Q45KT
	1500	35×35	0.15	4.06	ELS2DM152R35KT
		30×50	0.15	4.60	ELS2DM182O50KT
	1800	35×40	0.15	4.59	ELS2DM182R40KT
	2200	35×45	0.15	5.25	ELS2DM222R45KT
220(2N)	180	22×20	0.15	1.06	ELS2NM181O20KT
	270	22×25	0.15	1.47	ELS2NM271O25KT
		25×20	0.15	1.35	ELS2NM271P20KT
	330	22×30	0.15	1.70	ELS2NM331O30KT
		25×25	0.15	1.69	ELS2NM331P25KT
		30×20	0.15	1.58	ELS2NM331Q20KT
		22×30	0.15	1.89	ELS2NM391O30KT
	390	25×25	0.15	1.84	ELS2NM391P25KT
		30×20	0.15	1.71	ELS2NM391Q20KT
		22×35	0.15	2.08	ELS2NM471O35KT
		25×30	0.15	2.08	ELS2NM471P30KT
	470	30×25	0.15	2.12	ELS2NM471Q25KT
		35×20	0.15	1.88	ELS2NM471R20KT
		22×40	0.15	2.33	ELS2NM561O40KT
		25×35	0.15	2.38	ELS2NM561P35KT
	560	30×25	0.15	2.31	ELS2NM561Q25KT
		35×20	0.15	2.14	ELS2NM561R20KT
		22×45	0.15	2.63	ELS2NM681O45KT
		25×35	0.15	2.68	ELS2NM681P35KT
	680	30×30	0.15	2.62	ELS2NM681Q30KT
		35×25	0.15	2.58	ELS2NM681R25KT
		25×45	0.15	3.01	ELS2NM821P45KT
		30×35	0.15	2.99	ELS2NM821Q35KT
	820	35×30	0.15	2.79	ELS2NM821R30KT
		25×50	0.15	3.40	ELS2NM102P50KT
		30×35	0.15	3.42	ELS2NM102Q35KT
		35×30	0.15	3.29	ELS2NM102R30KT
	1000	30×40	0.15	3.88	ELS2NM122Q40KT
		35×35	0.15	3.68	ELS2NM122R35KT
		30×50	0.15	4.44	ELS2NM152Q50KT
		35×40	0.15	4.10	ELS2NM152R40KT
	1800	35×45	0.15	4.52	ELS2NM182R45KT

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WV (V _{dc})	Cap (μF)	Size ΦD×L(mm)	tanδ	Rated ripple current (A _{rms} /85°C, 120Hz)	Part Number
250(2E)	150	22×20	0.15	0.97	ELS2EM151O20KT
	180	22×20	0.15	1.06	ELS2EM181O20KT
	220	22×25	0.15	1.24	ELS2EM221O25KT
		25×20	0.15	1.22	ELS2EM221P20KT
	270	22×25	0.15	1.50	ELS2EM271O25KT
		22×30	0.15	1.66	ELS2EM331O30KT
	330	25×25	0.15	1.61	ELS2EM331P25KT
		30×20	0.15	1.58	ELS2EM331Q20KT
		22×35	0.15	1.88	ELS2EM391O35KT
	390	25×30	0.15	1.88	ELS2EM391P30KT
		30×25	0.15	1.86	ELS2EM391Q25KT
		35×20	0.15	1.71	ELS2EM391R20KT
	470	22×35	0.15	2.15	ELS2EM471O35KT
		25×35	0.15	2.15	ELS2EM471P35KT
		30×25	0.15	2.05	ELS2EM471Q25KT
		35×20	0.15	1.88	ELS2EM471R20KT
	560	22×40	0.15	2.48	ELS2EM561O40KT
		25×35	0.15	2.35	ELS2EM561P35KT
		30×25	0.15	2.35	ELS2EM561Q25KT
	680	22×50	0.15	2.61	ELS2EM681O50KT
		25×40	0.15	2.67	ELS2EM681P40KT
		30×30	0.15	2.71	ELS2EM681Q30KT
	820	35×25	0.15	2.58	ELS2EM681R25KT
		25×45	0.15	3.01	ELS2EM821P45KT
		30×35	0.15	2.98	ELS2EM821Q35KT
		35×30	0.15	2.96	ELS2EM821R30KT
	1000	30×40	0.15	3.56	ELS2EM102Q40KT
		35×35	0.15	3.48	ELS2EM102R35KT
	1200	30×45	0.15	3.99	ELS2EM122Q45KT
		35×35	0.15	3.84	ELS2EM122R35KT
	1500	35×40	0.15	4.33	ELS2EM152R40KT
	1800	35×50	0.15	4.54	ELS2EM182R50KT
315(2F)	100	22×20	0.15	0.79	ELS2FM101O20KT
	120	25×20	0.15	0.90	ELS2FM121P20KT
		22×25	0.15	1.06	ELS2FM151O25KT
	150	25×20	0.15	1.00	ELS2FM151P20KT
		22×30	0.15	1.29	ELS2FM181O30KT
		25×25	0.15	1.38	ELS2FM181P25KT
	180	30×20	0.15	1.16	ELS2FM181Q20KT
		22×30	0.15	1.41	ELS2FM221O30KT
		25×25	0.15	1.47	ELS2FM221P25KT
	220	30×20	0.15	1.28	ELS2FM221Q20KT
		22×35	0.15	1.68	ELS2FM271O35KT
		25×30	0.15	1.70	ELS2FM271P30KT
	270	30×25	0.15	1.55	ELS2FM271Q25KT
		35×20	0.15	1.43	ELS2FM271R20KT
		22×40	0.15	1.91	ELS2FM331O40KT
	330	25×35	0.15	1.94	ELS2FM331P35KT
		30×25	0.15	1.98	ELS2FM331Q25KT
		22×45	0.15	2.07	ELS2FM391O45KT
	390	25×40	0.15	2.11	ELS2FM391P40KT
		30×30	0.15	2.15	ELS2FM391Q30KT
		35×25	0.15	1.95	ELS2FM391R25KT
	470	25×45	0.15	2.31	ELS2FM471P45KT
		30×35	0.15	2.38	ELS2FM471Q35KT
		35×30	0.15	2.46	ELS2FM471R30KT
	560	25×50	0.15	2.46	ELS2FM561P50KT
		30×35	0.15	2.63	ELS2FM561Q35KT
		35×30	0.15	2.69	ELS2FM561R30KT
	680	30×45	0.15	2.82	ELS2FM681Q45KT
		35×35	0.15	3.05	ELS2FM681R35KT
	820	30×50	0.15	3.28	ELS2FM821Q50KT
		35×40	0.15	3.45	ELS2FM821R40KT
	1000	35×45	0.15	3.59	ELS2FM102R45KT

WV (V _{dc})	Cap (μF)	Size ΦD×L(mm)	tanδ	Rated ripple current (A _{rms} /85°C, 120Hz)	Part Number
350(2V)	82	22×20	0.15	0.72	ELS2VM820O20KT
	120	22×25	0.15	1.04	ELS2VM121O25KT
		25×20	0.15	0.90	ELS2VM121P20KT
	150	22×30	0.15	1.20	ELS2VM151O30KT
		25×25	0.15	1.22	ELS2VM151P25KT
		30×20	0.15	1.06	ELS2VM151Q20KT
	180	22×30	0.15	1.34	ELS2VM181O30KT
		25×25	0.15	1.37	ELS2VM181P25KT
		30×20	0.15	1.16	ELS2VM181Q20KT
	220	22×35	0.15	1.47	ELS2VM221O35KT
		25×30	0.15	1.53	ELS2VM221P30KT
		30×25	0.15	1.54	ELS2VM221Q25KT
	270	35×20	0.15	1.29	ELS2VM221R20KT
		22×40	0.15	1.70	ELS2VM271O40KT
		25×35	0.15	1.73	ELS2VM271P35KT
	330	30×25	0.15	1.80	ELS2VM271Q25KT
		35×20	0.15	1.49	ELS2VM271R20KT
		22×45	0.15	1.87	ELS2VM331O45KT
	390	25×35	0.15	1.97	ELS2VM331P35KT
		30×30	0.15	2.03	ELS2VM331Q30KT
		35×25	0.15	1.80	ELS2VM331R25KT
	470	25×40	0.15	2.14	ELS2VM391P40KT
		30×35	0.15	2.23	ELS2VM391Q35KT
		35×30	0.15	2.30	ELS2VM391R30KT
	560	25×50	0.15	2.55	ELS2VM471P50KT
		30×35	0.15	2.53	ELS2VM471Q35KT
		35×30	0.15	2.55	ELS2VM471R30KT
	680	30×40	0.15	2.73	ELS2VM561Q40KT
		35×35	0.15	2.75	ELS2VM561R35KT
		30×50	0.15	3.15	ELS2VM681Q50KT
	820	35×40	0.15	3.15	ELS2VM681R40KT
		35×45	0.15	3.47	ELS2VM821R45KT
	1000	35×50	0.15	3.60	ELS2VM102R50KT
400(2G)	68	22×20	0.15	0.65	ELS2GM680O20KT
	82	22×25	0.15	0.84	ELS2GM820O25KT
		25×20	0.15	0.74	ELS2GM820P20KT
	100	22×25	0.15	0.99	ELS2GM101O25KT
		25×20	0.15	0.82	ELS2GM101P20KT
		22×30	0.15	1.09	ELS2GM121O30KT
	120	25×25	0.15	1.13	ELS2GM121P25KT
		30×20	0.15	0.95	ELS2GM121Q20KT
		22×35	0.15	1.24	ELS2GM151O35KT
	150	25×30	0.15	1.27	ELS2GM151P30KT
		30×25	0.15	1.20	ELS2GM151Q25KT
		22×40	0.15	1.41	ELS2GM181O40KT
	180	25×30	0.15	1.44	ELS2GM181P30KT
		30×25	0.15	1.52	ELS2GM181Q25KT
		35×20	0.15	1.16	ELS2GM181R20KT
	220	22×45	0.15	1.58	ELS2GM221O45KT
		25×35	0.15	1.64	ELS2GM221P35KT
		30×30	0.15	1.66	ELS2GM221Q30KT
	270	35×25	0.15	1.47	ELS2GM221R25KT
		22×50	0.15	1.65	ELS2GM271O50KT
		25×40	0.15	1.79	ELS2GM271P40KT
	330	30×30	0.15	1.82	ELS2GM271Q30KT
		35×25	0.15	1.63	ELS2GM271R25KT
		25×45	0.15	2.00	ELS2GM331P45KT
	390	30×35	0.15	2.05	ELS2GM331Q35KT
		35×30	0.15	2.05	ELS2GM331R30KT
		25×50	0.15	2.12	ELS2GM391P50KT
	470	30×40	0.15	2.26	ELS2GM391Q40KT
		35×35	0.15	2.28	ELS2GM391R35KT
		30×45	0.15	2.51	ELS2GM471Q45KT
	560	35×35	0.15	2.54	ELS2GM471R35KT
		30×50	0.15	2.85	ELS2GM561Q50KT
		35×40	0.15	2.85	ELS2GM561R40KT
	680	35×50	0.15	3.10	ELS2GM681R50KT

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WV (Vdc)	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/85°C, 120Hz)	Part Number
420(2T)	47	22×20	0.20	0.54	ELS2TM470O20KT
	56	22×20	0.20	0.59	ELS2TM560O20KT
	68	25×20	0.20	0.68	ELS2TM680P20KT
	82	22×25	0.20	0.85	ELS2TM820O25KT
		25×20	0.20	0.74	ELS2TM820P20KT
	100	22×30	0.20	0.97	ELS2TM101O30KT
		25×25	0.20	0.98	ELS2TM101P25KT
		30×20	0.20	0.87	ELS2TM101Q20KT
	120	22×30	0.20	1.07	ELS2TM121O30KT
		25×25	0.20	1.08	ELS2TM121P25KT
		30×20	0.20	0.95	ELS2TM121Q20KT
	150	22×35	0.20	1.21	ELS2TM151O35KT
		25×30	0.20	1.26	ELS2TM151P30KT
		30×25	0.20	1.30	ELS2TM151Q25KT
	180	35×20	0.20	1.11	ELS2TM151R20KT
		22×40	0.20	1.33	ELS2TM181O40KT
		25×35	0.20	1.42	ELS2TM181P35KT
	220	30×25	0.20	1.48	ELS2TM181Q25KT
		35×20	0.20	1.16	ELS2TM181R20KT
		22×45	0.20	1.55	ELS2TM221O45KT
	270	25×35	0.20	1.58	ELS2TM221P35KT
		30×30	0.20	1.65	ELS2TM221Q30KT
		35×25	0.20	1.47	ELS2TM221R25KT
	330	25×40	0.20	1.74	ELS2TM271P40KT
		30×35	0.20	1.90	ELS2TM271Q35KT
		35×30	0.20	1.94	ELS2TM271R30KT
	390	25×50	0.20	2.20	ELS2TM331P50KT
		30×35	0.20	1.98	ELS2TM331Q35KT
		35×35	0.20	2.17	ELS2TM331R35KT
	470	30×40	0.20	2.22	ELS2TM391Q40KT
		35×35	0.20	2.27	ELS2TM391R35KT
		30×45	0.20	2.50	ELS2TM471Q45KT
	560	35×40	0.20	2.61	ELS2TM471R40KT
		35×45	0.20	2.95	ELS2TM561R45KT
	680	35×50	0.20	3.15	ELS2TM681R50KT
450(2W)	47	22×20	0.20	0.54	ELS2WM470O20KT
	56	22×20	0.20	0.59	ELS2WM560O20KT
	68	22×25	0.20	0.71	ELS2WM680O25KT
		25×20	0.20	0.68	ELS2WM680P20KT
	82	22×25	0.20	0.86	ELS2WM820O25KT
		25×20	0.20	0.74	ELS2WM820P20KT
		30×20	0.20	0.79	ELS2WM820Q20KT
	100	22×30	0.20	0.95	ELS2WM101O30KT
		25×25	0.20	0.97	ELS2WM101P25KT
		30×20	0.20	0.87	ELS2WM101Q20KT
	120	22×35	0.20	1.07	ELS2WM121O35KT
		25×30	0.20	1.09	ELS2WM121P30KT
		30×25	0.20	1.12	ELS2WM121Q25KT
	150	35×20	0.20	0.99	ELS2WM121R20KT
		22×40	0.20	1.18	ELS2WM151O40KT
		25×30	0.20	1.25	ELS2WM151P30KT
	180	30×25	0.20	1.29	ELS2WM151Q25KT
		35×20	0.20	1.06	ELS2WM151R20KT
		22×45	0.20	1.32	ELS2WM181O45KT
	220	25×35	0.20	1.40	ELS2WM181P35KT
		30×30	0.20	1.45	ELS2WM181Q30KT
		35×25	0.20	1.33	ELS2WM181R25KT
	270	22×50	0.20	1.48	ELS2WM221O50KT
		25×40	0.20	1.59	ELS2WM221P40KT
		30×30	0.20	1.64	ELS2WM221Q30KT
	330	35×25	0.20	1.66	ELS2WM221R25KT
		25×45	0.20	1.73	ELS2WM271P45KT
		30×35	0.20	1.89	ELS2WM271Q35KT
	390	35×30	0.20	1.90	ELS2WM271R30KT
		25×50	0.20	2.12	ELS2WM331P50KT
		30×40	0.20	2.12	ELS2WM331Q40KT
	470	35×35	0.20	2.15	ELS2WM331R35KT
		30×45	0.20	2.35	ELS2WM391Q45KT
		35×40	0.20	2.38	ELS2WM391R40KT
	560	30×50	0.20	2.65	ELS2WM471Q50KT
		35×45	0.20	2.68	ELS2WM471R45KT
	680	35×50	0.20	2.88	ELS2WM561R50KT

WV (Vdc)	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/85°C, 120Hz)	Part Number
500(2H)	47	22×20	0.20	0.59	ELS2HM470O20KT
	56	22×25	0.20	0.61	ELS2HM560O25KT
		25×20	0.20	0.62	ELS2HM560P20KT
	68	22×30	0.20	0.75	ELS2HM680O30KT
		25×25	0.20	0.78	ELS2HM680P25KT
	82	22×30	0.20	0.92	ELS2HM820O30KT
		25×25	0.20	0.95	ELS2HM820P25KT
		22×35	0.20	1.02	ELS2HM101O35KT
	100	25×30	0.20	1.06	ELS2HM101P30KT
		30×25	0.20	1.01	ELS2HM101Q25KT
		22×40	0.20	1.12	ELS2HM121O40KT
	120	25×35	0.20	1.23	ELS2HM121P35KT
		30×30	0.20	1.20	ELS2HM121Q30KT
		22×45	0.20	1.22	ELS2HM151O45KT
	150	25×40	0.20	1.26	ELS2HM151P40KT
		30×30	0.20	1.34	ELS2HM151Q30KT
		22×50	0.20	1.39	ELS2HM181O50KT
	180	25×45	0.20	1.45	ELS2HM181P45KT
		30×35	0.20	1.47	ELS2HM181Q35KT
		25×50	0.20	1.52	ELS2HM221P50KT
	220	30×40	0.20	1.60	ELS2HM221Q40KT
		30×45	0.20	1.98	ELS2HM271Q45KT
		35×35	0.20	2.02	ELS2HM271R35KT
	330	30×50	0.20	2.25	ELS2HM331Q50KT
		35×40	0.20	2.27	ELS2HM331R40KT
		35×45	0.20	2.45	ELS2HM391R45KT
	390	35×50	0.20	2.76	ELS2HM471R50KT
		35×60	0.20	2.90	ELS2HM561R60KT
		22×25	0.20	0.59	ELS2JM470O25KT
	56	22×30	0.20	0.63	ELS2JM560O30KT
		22×30	0.20	0.76	ELS2JM680O30KT
		25×25	0.20	0.72	ELS2JM680P25KT
	82	22×35	0.20	0.91	ELS2JM820O35KT
		25×30	0.20	0.89	ELS2JM820P30KT
		30×25	0.20	0.88	ELS2JM820Q25KT
	100	22×40	0.20	0.97	ELS2JM101O40KT
		25×35	0.20	0.97	ELS2JM101P35KT
		30×25	0.20	0.92	ELS2JM101Q25KT
	120	22×45	0.20	1.07	ELS2JM121O45KT
		25×40	0.20	1.16	ELS2JM121P40KT
		30×30	0.20	1.12	ELS2JM121Q30KT
	150	25×45	0.20	1.25	ELS2JM151P45KT
		30×35	0.20	1.29	ELS2JM151Q35KT
		35×30	0.20	1.29	ELS2JM151R30KT
	180	25×50	0.20	1.40	ELS2JM181P50KT
		30×40	0.20	1.45	ELS2JM181Q40KT
		35×30	0.20	1.36	ELS2JM181R30KT
	220	30×45	0.20	1.61	ELS2JM221Q45KT
		35×35	0.20	1.60	ELS2JM221R35KT
		35×40	0.20	2.00	ELS2JM271R40KT
	330	35×45	0.20	2.26	ELS2JM331R45KT
		35×50	0.20	2.45	ELS2JM391R50KT
		35×60	0.20	2.80	ELS2JM471R60KT
600(2K)	47	22×30	0.30	0.59	ELS2KM470O30KT
	56	22×35	0.30	0.63	ELS2KM560O35KT
		25×30	0.30	0.62	ELS2KM560P30KT
	68	22×40	0.30	0.76	ELS2KM680O40KT
		25×35	0.30	0.76	ELS2KM680P35KT
	82	22×45	0.30	0.92	ELS2KM820O45KT
		25×40	0.30	0.90	ELS2KM820P40KT
		25×45	0.30	1.01	ELS2KM101P45KT
	100	30×35	0.30	1.01	ELS2KM101Q35KT
		25×50	0.30	1.16	ELS2KM121P50KT
		30×40	0.30	1.16	ELS2KM121Q40KT
	150	30×45	0.30	1.29	ELS2KM151Q45KT
		30×50	0.30	1.45	ELS2KM181Q50KT
		35×40	0.30	1.45	ELS2KM181R40KT
	220	35×45	0.30	1.61	ELS2KM221R45KT
		35×50	0.30	2.02	ELS2KM271R50KT
		35×60	0.30	2.27	ELS2KM331R60KT