

# UHS Series (105°C 3000H)

- Compliant to the RoHS directive
- 105°C 3000H high temperature and high ripple current series
- For Home Appliance, Audio Amplifier, Frequency inverter, Vehicle Power Supply Module, Smart Meters, Medical Power Supply...



## ◆ SPECIFICATIONS

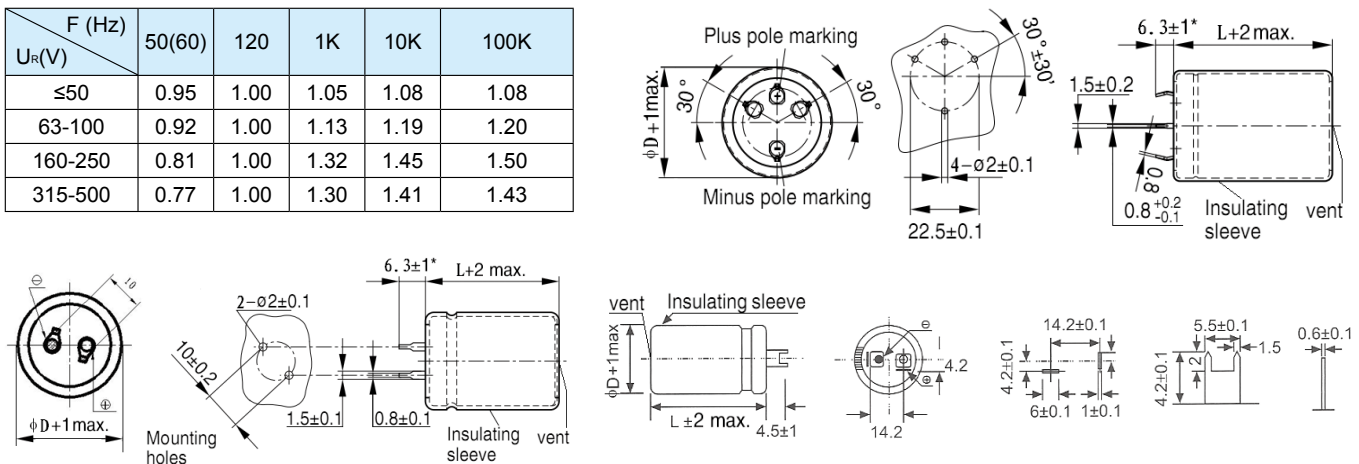
Item	Performance Characteristics							
Operating range	-40°C~+105°C				-25°C~+105°C			
Rated voltage range	10V~100V				160V~450V			
Capacitance tolerance	±20% (20°C, 120Hz)							
Leakage current	I≤0.01CV(µA) or 1.5mA (Whichever is smaller) (20°C, after 5 minutes) C=Nominal capacitance(µF), V=Rated voltage(V)							
Dissipation factor (20°C, 120Hz)	UR(V)	10	16	25	35	50	63 ~ 400	450
	tanδ	0.50	0.40	0.30	0.25	0.20	0.15	0.20
Stability at Low Temperature (Impedance ratio at 120Hz)	UR(V)	10 ~ 16	25	35	50~63	80~100	160~250	315~450
	Z(-25°C)/Z(+20°C)	4	3	3	2		4	8
	Z(-40°C)/Z(+20°C)	15	10	8	6	5	-	
Load Life	After applying rated voltage with specified ripple current for 3000 hours at 105°C (the peak voltage shall not exceed the rated voltage), and then restored for 24 hours, capacitor shall meet the following requirement:							
	Capacitance change	Within ±20% of the initial value.						
	Dissipation factor	Not more than 200% of the initial specified value.						
	Leakage current	Not more than the initial specified value.						
Shelf Life	After storing for 1000 hours at 105°C, UR to be applied for 30 minutes and then restored for 24 hours, capacitor shall meet the following requirement:							
	Capacitance change	Within ±15% of the initial value.						
	Dissipation factor	Not more than 150% of the initial specified value.						
	Leakage current	Not more than the initial specified value.						
Standard	JIS C 5101-4							

## ◆ Coefficient of rated ripple current

UR(V)	F (Hz)				
	50(60)	120	1K	10K	100K
≤50	0.95	1.00	1.05	1.08	1.08
63-100	0.92	1.00	1.13	1.19	1.20
160-250	0.81	1.00	1.32	1.45	1.50
315-500	0.77	1.00	1.30	1.41	1.43

## ◆ Drawing

Unit:mm



◆ Shorter terminal is: 4.0±0.5mm

## ◆ STANDARD RATING

Rated Voltage code (V.DC)	Capacitance (μF)	Case size ΦD×L(mm)	tanδ 20°C, 120Hz	Ripple current 105°C, 120Hz (Arms)	Max ESR 20°C, 120Hz(mΩ)	ESR(typ.) 20°C, 120Hz(mΩ)	Part number
10 1A (16)	12000	22×30	0.50	1.86	50	40	UHS1A123KP030M
	15000	25×25	0.50	2.07	40	30	UHS1A153KQ025M
	18000	25×30	0.50	2.34	32	26	UHS1A183KQ030M
	22000	25×35	0.50	2.68	25	20	UHS1A223KQ035M
	33000	30×30	0.50	3.47	18	13	UHS1A333KR030M
	39000	30×35	0.50	3.87	15	11	UHS1A393KR035M
	47000	35×40	0.50	3.95	12	9.1	UHS1A473KR040M
	68000	35×50	0.50	5.78	8	6.3	UHS1A683KS040M
	82000	35×50	0.50	7.06	7	5.2	UHS1A823KS045M
16 1C (25)	6800	22*25	0.40	1.71	100	70	UHS1C682KP025M
	10000	22*30	0.40	2.1	70	50	UHS1C103KP030M
		25*25	0.40	2.1	70	50	UHS1C103KQ025M
	12000	22*35	0.40	2.57	60	40	UHS1C123KP035M
		25*30	0.40	2.57	60	40	UHS1C123KQ030M
		30*25	0.40	2.57	60	40	UHS1C123KR025M
	15000	22*40	0.40	2.84	45	35	UHS1C153KP040M
		25*35	0.40	2.84	45	35	UHS1C153KQ035M
	18000	22*45	0.40	3.26	40	30	UHS1C183KP045M
		25*40	0.40	3.26	40	30	UHS1C183KQ040M
		30*30	0.40	3.26	40	30	UHS1C183KR030M
		35*25	0.40	3.26	40	30	UHS1C183KS025M
	22000	25*45	0.40	3.58	30	22	UHS1C223KQ045M
		30*35	0.40	3.58	30	22	UHS1C223KR035M
	27000	25*50	0.40	4.02	25	20	UHS1C273KQ050M
		30*40	0.40	4.02	25	20	UHS1C273KR040M
		35*30	0.40	4.02	25	20	UHS1C273KS030M
	33000	30*45	0.40	4.53	20	15	UHS1C333KR045M
		35*35	0.40	4.53	20	15	UHS1C333KS035M
	39000	30*50	0.40	5.05	20	15	UHS1C393KR050M
35*40		0.40	5.05	20	15	UHS1C393KS040M	
47000	35*45	0.40	5.70	15	12	UHS1C473KS045M	
25 1E (35)	4700	22*25	0.30	1.68	120	80	UHS1E472KP025M
	6800	22*30	0.30	2.05	80	55	UHS1E682KP030M
		25*25	0.30	2.05	80	55	UHS1E682KQ025M
	8200	22*35	0.30	2.42	65	45	UHS1E822KP035M
		25*30	0.30	2.42	65	45	UHS1E822KQ030M
		30*25	0.30	2.42	65	45	UHS1E822KR025M
	10000	22*40	0.30	2.63	55	40	UHS1E103KP040M
		25*35	0.30	2.63	55	40	UHS1E103KQ035M
	12000	25*40	0.30	2.95	45	35	UHS1E123KQ040M
		30*30	0.30	2.95	45	35	UHS1E123KR030M
		35*25	0.30	2.95	45	35	UHS1E123KS025M
	15000	25*45	0.30	3.40	35	25	UHS1E153KQ045M
		30*35	0.30	3.40	35	25	UHS1E153KR035M
		35*30	0.30	3.40	35	25	UHS1E153KS030M
	18000	25*50	0.30	3.74	30	22	UHS1E183KQ050M
		30*40	0.30	3.74	30	22	UHS1E183KR040M
	22000	30*45	0.30	4.49	25	20	UHS1E223KR045M
		35*35	0.30	4.49	25	20	UHS1E223KS035M
	27000	35*45	0.30	5.04	20	15	UHS1E273KS045M
	33000	35*50	0.30	5.67	20	12	UHS1E333KS050M
35 1V (50)	3300	22*25	0.25	1.52	150	100	UHS1V332KP025M
	4700	25*25	0.25	1.96	100	70	UHS1V472KQ025M
		22*40	0.25	2.44	70	50	UHS1V682KP040M
	6800	25*35	0.25	2.44	70	50	UHS1V682KQ035M

## ◆ STANDARD RATING

Rated Voltage code (V.DC)	Capacitance (μF)	Case size ΦD×L(mm)	tanδ 20°C, 120Hz	Ripple current 105°C, 120Hz (Arms)	Max ESR 20°C, 120Hz(mΩ)	ESR(typ.) 20°C, 120Hz(mΩ)	Part number	
35 1V (50)	10000	25*45	0.25	3.09	50	35	UHS1V103KQ045M	
		30*35	0.25	3.09	50	35	UHS1V103KR035M	
	12000	25*50	0.25	3.64	40	30	UHS1V123KQ050M	
		35*30	0.25	3.64	40	30	UHS1V123KS030M	
	15000	30*45	0.25	3.94	35	25	UHS1V153KR045M	
		35*35	0.25	3.94	35	25	UHS1V153KS035M	
	18000	35*40	0.25	4.39	30	20	UHS1V183KS040M	
	22000	35*50	0.25	5.19	25	16	UHS1V223KS050M	
	50 1H (63)	1800	22*25	0.20	1.40	225	160	UHS1H182KP025M
		2200	22*30	0.20	1.53	185	130	UHS1H222KP030M
2700		25*25	0.20	1.81	150	110	UHS1H272KQ025M	
3300		22*35	0.20	2.03	125	90	UHS1H332KP035M	
		25*30	0.20	2.03	125	90	UHS1H332KQ030M	
3900		25*35	0.20	2.42	110	75	UHS1H392KQ035M	
		30*25	0.20	2.42	110	75	UHS1H392KR025M	
4700		30*30	0.20	2.81	90	60	UHS1H472KR030M	
		35*25	0.20	2.81	90	60	UHS1H472KS025M	
5600		22*50	0.20	3.11	80	50	UHS1H562KP050M	
		25*40	0.20	3.11	80	50	UHS1H562KQ040M	
		30*35	0.20	3.11	80	50	UHS1H562KR035M	
6800		30*40	0.20	3.57	60	45	UHS1H682KR040M	
		35*30	0.20	3.57	60	45	UHS1H682KS030M	
8200		30*45	0.20	3.91	50	35	UHS1H822KR045M	
		35*35	0.20	3.91	50	35	UHS1H822KS035M	
10000		30*50	0.20	4.31	42	30	UHS1H103KR050M	
		35*40	0.20	4.31	42	30	UHS1H103KS040M	
12000		35*45	0.20	4.81	35	25	UHS1H123KS045M	
63 1J (80)		1200	22*25	0.15	1.33	225	160	UHS1J122KP025M
	1800	22*30	0.15	1.61	150	110	UHS1J182KP030M	
		25*25	0.15	1.61	150	110	UHS1J182KQ025M	
	2200	22*35	0.15	1.83	125	90	UHS1J222KP035M	
		25*30	0.15	1.83	125	90	UHS1J222KQ030M	
	2700	22*40	0.15	2.10	100	70	UHS1J272KP040M	
		25*35	0.15	2.10	100	70	UHS1J272KQ035M	
		30*25	0.15	2.10	100	70	UHS1J272KR025M	
	3300	25*40	0.15	2.54	80	60	UHS1J332KQ040M	
		30*30	0.15	2.54	80	60	UHS1J332KR030M	
		35*25	0.15	2.54	80	60	UHS1J332KS025M	
	3900	25*45	0.15	2.68	70	50	UHS1J392KQ045M	
		30*35	0.15	2.68	70	50	UHS1J392KR035M	
	4700	25*50	0.15	3.05	60	40	UHS1J472KQ050M	
		30*40	0.15	3.05	60	40	UHS1J472KR040M	
		35*30	0.15	3.05	60	40	UHS1J472KS030M	
	5600	30*45	0.15	3.45	50	35	UHS1J562KR045M	
		35*35	0.15	3.45	50	35	UHS1J562KS035M	
	6800	30*50	0.15	3.93	40	30	UHS1J682KR050M	
		35*40	0.15	3.93	40	30	UHS1J682KS040M	
8200	35*45	0.15	4.39	35	25	UHS1J822KS045M		
10000	35*50	0.15	4.94	30	20	UHS1J103KS050M		
80 1K (100)	1000	22*25	0.15	1.31	270	190	UHS1K102KP025M	
	1200	22*30	0.15	1.47	230	160	UHS1K122KP030M	
		25*25	0.15	1.47	230	160	UHS1K122KQ025M	
	1500	22*35	0.15	1.71	180	130	UHS1K152KP035M	
		25*30	0.15	1.71	180	130	UHS1K152KQ030M	
	1800	22*40	0.15	1.93	150	110	UHS1K182KP040M	
		30*25	0.15	1.93	150	110	UHS1K182KR025M	

## ◆ STANDARD RATING

Rated Voltage code (V.DC)	Capacitance (μF)	Case size ΦD×L(mm)	tanδ 20°C, 120Hz	Ripple current 105°C, 120Hz (Arms)	Max ESR 20°C, 120Hz(mΩ)	ESR(typ.) 20°C, 120Hz(mΩ)	Part number
80 1K (100)	2200	25*35	0.15	2.29	125	90	UHS1K222KQ035M
		30*30	0.15	2.29	125	90	UHS1K222KR030M
		35*25	0.15	2.29	125	90	UHS1K222KS025M
	2700	25*45	0.15	2.56	100	70	UHS1K272KQ045M
		30*35	0.15	2.56	100	70	UHS1K272KR035M
	3300	25*50	0.15	2.93	80	60	UHS1K332KQ050M
		30*40	0.15	2.93	80	60	UHS1K332KR040M
		35*30	0.15	2.93	80	60	UHS1K332KS030M
	3900	30*45	0.15	3.28	70	50	UHS1K392KR045M
		35*35	0.15	3.28	70	50	UHS1K392KS035M
	4700	30*50	0.15	3.75	60	40	UHS1K472KR050M
		35*40	0.15	3.75	60	40	UHS1K472KS040M
	5600	35*45	0.15	4.07	50	35	UHS1K562KS045M
	6800	35*50	0.15	4.41	40	30	UHS1K682KS050M
100 2A (125)	560	22*25	0.15	1.13	480	340	UHS2A561KP025M
	820	22*30	0.15	1.43	330	230	UHS2A821KP030M
		25*25	0.15	1.43	330	230	UHS2A821KQ025M
	1000	22*35	0.15	1.64	270	190	UHS2A102KP035M
		25*30	0.15	1.64	270	190	UHS2A102KQ030M
	1200	22*40	0.15	1.85	230	160	UHS2A122KP040M
		25*35	0.15	1.85	230	160	UHS2A122KQ035M
		30*25	0.15	1.85	230	160	UHS2A122KR025M
	1500	25*40	0.15	2.18	180	130	UHS2A152KQ040M
		30*30	0.15	2.18	180	130	UHS2A152KR030M
		35*25	0.15	2.18	180	130	UHS2A152KS025M
	1800	25*45	0.15	2.40	150	110	UHS2A182KQ045M
		30*35	0.15	2.40	150	110	UHS2A182KR035M
	2200	25*50	0.15	2.84	125	85	UHS2A222KQ050M
		30*40	0.15	2.84	125	85	UHS2A222KR040M
		35*30	0.15	2.84	125	85	UHS2A222KS030M
	2700	30*45	0.15	3.10	100	70	UHS2A272KR045M
		35*35	0.15	3.10	100	70	UHS2A272KS035M
	3300	30*50	0.15	3.50	80	60	UHS2A332KR050M
		35*40	0.15	3.50	80	60	UHS2A332KS040M
3900	35*45	0.15	3.89	70	50	UHS2A392KS045M	
4700	35*50	0.15	4.37	60	40	UHS2A472KS050M	
160 2C (200)	330	22*25	0.15	1.31	610	430	UHS2C331KP025M
	390	22*30	0.15	1.52	510	360	UHS2C391KP030M
	470	22*35	0.15	1.63	430	300	UHS2C471KP035M
		25*25	0.15	1.63	430	300	UHS2C471KQ025M
	560	22*40	0.15	1.83	355	250	UHS2C561KP040M
		25*30	0.15	1.83	355	250	UHS2C561KQ030M
	680	22*45	0.15	2.0	300	210	UHS2C681KP045M
		25*35	0.15	2.0	300	210	UHS2C681KQ035M
		30*25	0.15	2.0	300	210	UHS2C681KR025M
	820	25*40	0.15	2.21	245	170	UHS2C821KQ040M
		30*30	0.15	2.21	245	170	UHS2C821KR030M
	1000	25*45	0.15	2.63	200	140	UHS2C102KQ045M
		30*35	0.15	2.63	200	140	UHS2C102KR035M
	1200	25*50	0.15	3.10	170	120	UHS2C122KQ050M
		30*40	0.15	3.10	170	120	UHS2C122KR040M
		35*30	0.15	3.10	170	120	UHS2C122KS030M
	1500	30*45	0.15	3.36	135	95	UHS2C152KR045M
		35*35	0.15	3.36	135	95	UHS2C152KS035M
1800	35*45	0.15	3.80	120	80	UHS2C182KS045M	
2200	35*50	0.15	4.27	100	70	UHS2C222KS050M	

## ◆ STANDARD RATING

Rated Voltage code (V.DC)	Capacitance (μF)	Case size ΦD×L(mm)	tanδ 20°C, 120Hz	Ripple current 105°C, 120Hz (Arms)	Max ESR 20°C, 120Hz(mΩ)	ESR(typ.) 20°C, 120Hz(mΩ)	Part number
200 2D (250)	220	22*25	0.15	1.16	910	640	UHS2D221KP025M
	270	22*30	0.15	1.27	740	520	UHS2D271KP030M
	330	25*25	0.15	1.44	610	430	UHS2D331KQ025M
	390	22*35	0.15	1.49	510	360	UHS2D391KP035M
	470	22*40	0.15	1.66	425	300	UHS2D471KP040M
		25*30	0.15	1.66	425	300	UHS2D471KQ030M
		30*25	0.15	1.66	425	300	UHS2D471KR025M
	560	22*45	0.15	1.84	355	250	UHS2D561KP045M
		25*35	0.15	1.84	355	250	UHS2D561KQ035M
	680	22*50	0.15	2.04	300	210	UHS2D681KP050M
		25*40	0.15	2.04	300	210	UHS2D681KQ040M
		30*30	0.15	2.04	300	210	UHS2D681KR030M
	820	25*50	0.15	2.37	245	170	UHS2D821KQ050M
		30*35	0.15	2.37	245	170	UHS2D821KR035M
		35*30	0.15	2.37	245	170	UHS2D821KS030M
	1000	30*45	0.15	2.79	200	140	UHS2D102KR045M
		35*35	0.15	2.79	200	140	UHS2D102KS035M
	1200	30*50	0.15	3.20	170	120	UHS2D122KR050M
35*40		0.15	3.20	170	120	UHS2D122KS040M	
1500	35*45	0.15	3.62	140	100	UHS2D152KS045M	
1800	35*50	0.15	4.04	120	80	UHS2D182KS050M	
250 2E (300)	180	22*25	0.15	0.99	1110	780	UHS2E181KP025M
	220	22*30	0.15	1.17	910	640	UHS2E221KP030M
		25*25	0.15	1.17	910	640	UHS2E221KQ025M
	270	22*35	0.15	1.21	740	520	UHS2E271KP035M
	330	22*40	0.15	1.38	610	430	UHS2E331KP040M
		25*30	0.15	1.38	610	430	UHS2E331KQ030M
		30*25	0.15	1.38	610	430	UHS2E331KR025M
	390	22*45	0.15	1.58	510	360	UHS2E391KP045M
		25*35	0.15	1.58	510	360	UHS2E391KQ035M
	470	25*40	0.15	1.69	430	300	UHS2E471KQ040M
		30*30	0.15	1.69	430	300	UHS2E471KR030M
		35*25	0.15	1.69	430	300	UHS2E471KS025M
	560	25*45	0.15	1.96	360	250	UHS2E561KQ045M
		30*35	0.15	1.96	360	250	UHS2E561KR035M
		35*30	0.15	1.96	360	250	UHS2E561KS030M
	680	25*50	0.15	2.34	300	210	UHS2E681KQ050M
		30*40	0.15	2.34	300	210	UHS2E681KR040M
	820	30*45	0.15	2.47	245	170	UHS2E821KR045M
35*35		0.15	2.47	245	170	UHS2E821KS035M	
1000	30*50	0.15	2.84	200	140	UHS2E102KR050M	
	35*40	0.15	2.84	200	140	UHS2E102KS040M	
1200	35*45	0.15	3.20	170	120	UHS2E122KS045M	
1500	35*50	0.15	3.76	170	120	UHS2E152KS050M	
315 2F (365)	100	22*25	0.15	0.74	2000	1600	UHS2F101KP025M
	120	22*25	0.15	0.83	2000	1600	UHS2F121KP025M
	150	22*30	0.15	0.89	1330	1100	UHS2F151KP030M
		25*25	0.15	0.89	1330	1100	UHS2F151KQ025M
	180	22*35	0.15	1.00	1110	890	UHS2F181KP035M
		25*30	0.15	1.00	1110	890	UHS2F181KQ030M
	220	22*40	0.15	1.21	910	730	UHS2F221KP040M
		25*35	0.15	1.21	910	730	UHS2F221KQ035M
	270	22*45	0.15	1.39	740	600	UHS2F271KP045M
		25*40	0.15	1.39	740	600	UHS2F271KQ040M
30*30		0.15	1.39	740	600	UHS2F271KR030M	
		35*25	0.15	1.39	740	600	UHS2F271KS025M

## ◆ STANDARD RATING

Rated Voltage code (V.DC)	Capacitance (μF)	Case size ΦD×L(mm)	tanδ 20°C, 120Hz	Ripple current 105°C, 120Hz (Arms)	Max ESR 20°C, 120Hz(mΩ)	ESR(typ.) 20°C, 120Hz(mΩ)	Part number	
315 2F (365)	330	25*45	0.15	1.50	610	490	UHS2F331KQ045M	
		30*35	0.15	1.50	610	490	UHS2F331KR035M	
	390	30*40	0.15	1.68	520	410	UHS2F391KR040M	
		35*30	0.15	1.68	520	410	UHS2F391KS030M	
	470	30*45	0.15	1.91	430	345	UHS2F471KR045M	
		35*35	0.15	1.91	430	345	UHS2F471KS035M	
	560	30*50	0.15	2.13	360	290	UHS2F561KR050M	
		35*40	0.15	2.13	360	290	UHS2F561KS040M	
	680	35*45	0.15	2.47	300	240	UHS2F681KS045M	
	350 2V (400)	82	22*30	0.15	0.63	2940	1620	UHS2V820KP030M
		100	25*25	0.15	0.74	1995	1100	UHS2V101KQ025M
		120	22*35	0.15	0.82	1660	920	UHS2V121KP035M
150		22*40	0.15	0.89	1330	730	UHS2V151KP040M	
180		22*45	0.15	1.00	1110	610	UHS2V181KP045M	
		25*35	0.15	1.00	1110	610	UHS2V181KQ035M	
		30*30	0.15	1.00	1110	610	UHS2V181KR030M	
220		22*50	0.15	1.10	910	500	UHS2V221KP050M	
		25*40	0.15	1.10	910	500	UHS2V221KQ040M	
270		25*50	0.15	1.31	740	410	UHS2V271KQ050M	
		30*35	0.15	1.31	740	410	UHS2V271KR035M	
		35*30	0.15	1.31	740	410	UHS2V271KS030M	
330		30*45	0.15	1.52	610	340	UHS2V331KR045M	
		35*35	0.15	1.52	610	340	UHS2V331KS035M	
390		30*50	0.15	1.69	510	285	UHS2V391KR050M	
		35*40	0.15	1.69	510	285	UHS2V391KS040M	
470		35*45	0.15	1.94	425	240	UHS2V471KS045M	
560		35*50	0.15	2.18	355	200	UHS2V561KS050M	
400 2G (450)	68	22*25	0.15	0.53	2930	1525	UHS2G680KP025M	
	82	25*25	0.15	0.68	2430	1265	UHS2G820KQ025M	
	100	22*30	0.15	0.84	2000	1035	UHS2G101KP030M	
	120	22*35	0.15	0.92	1660	865	UHS2G121KP035M	
		25*30	0.15	0.92	1660	865	UHS2G121KQ030M	
		30*25	0.15	0.92	1660	865	UHS2G121KR025M	
	150	22*40	0.15	1.00	1330	690	UHS2G151KP040M	
		25*35	0.15	1.00	1330	690	UHS2G151KQ035M	
	180	25*40	0.15	1.10	1110	575	UHS2G181KQ040M	
		30*30	0.15	1.10	1110	575	UHS2G181KR030M	
		35*25	0.15	1.10	1110	575	UHS2G181KS025M	
	220	25*45	0.15	1.21	910	475	UHS2G221KQ045M	
		30*35	0.15	1.21	910	475	UHS2G221KR035M	
	270	25*50	0.15	1.37	740	385	UHS2G271KQ050M	
		30*40	0.15	1.37	740	385	UHS2G271KR040M	
		35*30	0.15	1.37	740	385	UHS2G271KS030M	
	330	30*45	0.15	1.54	610	315	UHS2G331KR045M	
		35*35	0.15	1.54	610	315	UHS2G331KS035M	
390	30*50	0.15	1.73	510	265	UHS2G391KR050M		
	35*40	0.15	1.73	510	265	UHS2G391KS040M		
470	35*45	0.15	2.00	425	220	UHS2G471KS045M		
560	35*50	0.15	2.26	355	185	UHS2G561KS050M		
680	35*60	0.15	2.42	305	165	UHS2G681KS060M		
450 2W (500)	56	22*30	0.20	0.61	4740	2370	UHS2W560KP030M	
	68	22*30	0.20	0.69	3910	1960	UHS2W680KP030M	
		25*25	0.20	0.69	3910	1960	UHS2W680KQ025M	
	82	22*35	0.20	0.89	3240	1620	UHS2W820KP035M	
		25*30	0.20	0.89	3240	1620	UHS2W820KQ030M	

Rated Voltage code (V.DC)	Capacitance ( $\mu\text{F}$ )	Case size $\Phi\text{D}\times\text{L}(\text{mm})$	$\tan\delta$ 20°C, 120Hz	Ripple current 105°C, 120Hz (Arms)	Max ESR 20°C, 120Hz(m $\Omega$ )	ESR(typ.) 20°C, 120Hz(m $\Omega$ )	Part number
450 2W (500)	100	22*40	0.20	1.10	2655	1330	UHS2W101KP040M
		25*30	0.20	1.10	2655	1330	UHS2W101KQ030M
		30*25	0.20	1.10	2655	1330	UHS2W101KR025M
	120	22*45	0.20	1.19	2215	1110	UHS2W121KP045M
		25*35	0.20	1.19	2215	1110	UHS2W121KQ035M
	150	25*40	0.20	1.38	1770	885	UHS2W151KQ040M
		30*30	0.20	1.38	1770	885	UHS2W151KR030M
		35*25	0.20	1.38	1770	885	UHS2W151KS025M
	180	25*45	0.20	1.68	1475	740	UHS2W181KQ045M
		30*35	0.20	1.68	1475	740	UHS2W181KR035M
	220	25*50	0.20	1.84	1210	610	UHS2W221KQ050M
		30*40	0.20	1.84	1210	610	UHS2W221KR040M
		35*30	0.20	1.84	1210	610	UHS2W221KS030M
	270	30*45	0.20	2.00	990	500	UHS2W271KR045M
		35*35	0.20	2.00	990	500	UHS2W271KS035M
	330	30*50	0.20	2.31	810	410	UHS2W331KR050M
		35*40	0.20	2.31	810	410	UHS2W331KS040M
	390	35*45	0.20	2.60	685	340	UHS2W391KS045M
470	35*50	0.20	2.90	565	290	UHS2W471KS050M	
560	35*50	0.20	3.05	360	320	UHS2W561KS050M	

- The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 10°C rise.
- When long life performance is required in actual use, the rms ripple current has to be reduced.