

## TS-UQ Series 85°C, 2000 hours

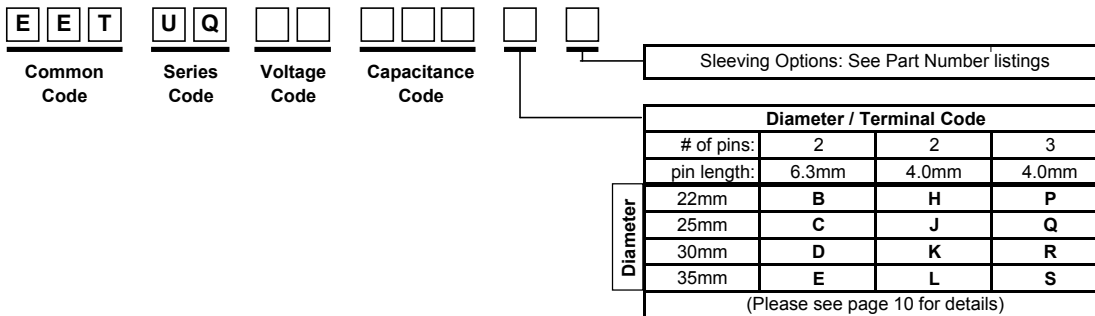
- Highly miniaturized version (30% smaller than UP series)
- 2 and 3 pin versions available
- PET Sleeve Option



Rated Working Voltage:	16 ~ 250 VDC		350 ~ 450 VDC									
Operating Temperature:	-40 ~ +85°C		-25 ~ +85°C									
Nominal Capacitance:	270 ~ 100000µF		82 ~ 1000µF									
Capacitance Tolerance:	± 20%											
Dissipation Factor: (120 Hz, +20°C)	Working Voltage [V]:	16	25	35	50	63	80	100	160 ~ 450			
	Max. D.F. (%):	50	40	35	30	25	20	20	15			
For capacitance values > 33000µF, add the value of: $\frac{(\text{rated cap. } \mu\text{F}) - 33000}{1000}$												
Leakage Current:	3√CV (µA) max. after 5 minutes; C = Capacitance in µF, V = WV											
Ripple Current Multipliers:	Frequency(Hz):	50	60	100-120	500	1k	10k	Ripple Current Ambient Temperature Factors*				
	16-100WV:	0.93	0.95	1.0	1.05	1.08	1.15	Temperature (°C):	85°C	70°C	60°C	≤45°C
	160-450WV:	0.75	0.8	1.0	1.2	1.25	1.4	Multiplier:	1.0	1.3	1.4	1.5
Endurance:	2000 hours at +85°C with maximum specified ripple current (see page 6)											

\*Use of temperature ripple current multipliers may limit life to the hours specified for the maximum operating temperature.

### Part Number System



### TS-UQ Standard Ratings (part numbers shown with 2 pins and 6.3mm length terminal)

Cap. (µF)	Size (mm) D x L	Max 85°C R.C. (A <sub>rms</sub> )		20°C ESR (Ω, max.)		Panasonic Part Number	Part Number Suffix Slewing Options		
		120Hz	10kHz~	120Hz	20kHz		PVC with Top Plate	PVC without Top Plate	PET without Top Plate
<b>16 VDC Working, 20 VDC Surge</b>									
12000	22 x 25	4.52	5.20	0.069	0.059	EETUQ1C123B_	A	(No suffix)	J
15000	22 x 30	5.26	6.05	0.055	0.047	EETUQ1C153B_	A	(No suffix)	J
18000	22 x 35	5.57	6.41	0.046	0.039	EETUQ1C183B_	A	(No suffix)	J
	25 x 25	5.57	6.41	0.046	0.039	EETUQ1C183C_	A	(No suffix)	J
22000	22 x 40	6.10	7.02	0.038	0.032	EETUQ1C223B_	A	(No suffix)	J
	25 x 30	6.10	7.02	0.038	0.032	EETUQ1C223C_	A	(No suffix)	J
27000	22 x 45	6.31	7.26	0.031	0.026	EETUQ1C273B_	A	(No suffix)	J
	25 x 35	6.31	7.26	0.031	0.026	EETUQ1C273C_	A	(No suffix)	J
	30 x 25	6.31	7.26	0.031	0.026	EETUQ1C273D_	A	(No suffix)	J
33000	22 x 50	6.84	7.87	0.025	0.021	EETUQ1C333B_	A	(No suffix)	J
	25 x 40	6.84	7.87	0.025	0.021	EETUQ1C333C_	A	(No suffix)	J
	30 x 30	6.84	7.87	0.025	0.021	EETUQ1C333D_	A	(No suffix)	J
	35 x 25	6.84	7.87	0.025	0.021	EETUQ1C333E_	A	(No suffix)	J
39000	25 x 45	6.94	7.98	0.024	0.020	EETUQ1C393C_	A	(No suffix)	J
	30 x 35	6.94	7.98	0.024	0.020	EETUQ1C393D_	A	(No suffix)	J
47000	25 x 50	7.47	8.59	0.023	0.019	EETUQ1C473C_	A	(No suffix)	J
	30 x 40	7.47	8.59	0.023	0.019	EETUQ1C473D_	A	(No suffix)	J
	35 x 30	7.47	8.59	0.023	0.019	EETUQ1C473E_	A	(No suffix)	J
56000	30 x 45	8.73	10.04	0.022	0.019	EETUQ1C563D_	A	(No suffix)	J
	35 x 35	8.73	10.04	0.022	0.018	EETUQ1C563E_	A	(No suffix)	J
68000	30 x 50	9.05	10.41	0.021	0.018	EETUQ1C683D_	A	(No suffix)	J
	35 x 40	9.05	10.41	0.021	0.018	EETUQ1C683E_	A	(No suffix)	J
82000	35 x 45	9.49	10.91	0.020	0.018	EETUQ1C823E_	A	(No suffix)	J
100000	35 x 50	10.18	11.71	0.019	0.018	EETUQ1C104E_	A	(No suffix)	J

### TS-UQ Standard Ratings (continued)

Cap. ( $\mu$ F)	Size (mm) D x L	Max 85°C R.C. ( $A_{rms}$ )				20°C ESR ( $\Omega$ , max.)		Panasonic Part Number	Part Number Suffix Slewing Options		
		120Hz		10kHz~		120Hz	20kHz		PVC with Top Plate	PVC without Top Plate	PET without Top Plate
<b>25 VDC Working, 32 VDC Surge</b>											
8200	22 x 25	3.57	4.11	0.081	0.065	EETUQ1E822B_	A	(No suffix)	J		
12000	22 x 30	4.10	4.72	0.055	0.044	EETUQ1E123B_	A	(No suffix)	J		
	25 x 25	4.10	4.72	0.055	0.044	EETUQ1E123C_	A	(No suffix)	J		
15000	22 x 35	4.63	5.32	0.044	0.035	EETUQ1E153B_	A	(No suffix)	J		
	25 x 30	4.63	5.32	0.044	0.035	EETUQ1E153C_	A	(No suffix)	J		
18000	22 x 40	5.47	6.29	0.037	0.029	EETUQ1E183B_	A	(No suffix)	J		
	25 x 35	5.47	6.29	0.037	0.029	EETUQ1E183C_	A	(No suffix)	J		
	30 x 25	5.47	6.29	0.037	0.029	EETUQ1E183D_	A	(No suffix)	J		
22000	22 x 45	6.10	7.02	0.030	0.024	EETUQ1E223B_	A	(No suffix)	J		
	25 x 40	6.10	7.02	0.030	0.024	EETUQ1E223C_	A	(No suffix)	J		
	30 x 30	6.10	7.02	0.030	0.024	EETUQ1E223D_	A	(No suffix)	J		
	35 x 25	6.10	7.02	0.030	0.024	EETUQ1E223E_	A	(No suffix)	J		
27000	25 x 45	6.21	7.14	0.025	0.020	EETUQ1E273C_	A	(No suffix)	J		
	30 x 35	6.21	7.14	0.025	0.020	EETUQ1E273D_	A	(No suffix)	J		
33000	25 x 50	6.84	7.87	0.020	0.016	EETUQ1E333C_	A	(No suffix)	J		
	30 x 40	6.84	7.87	0.020	0.016	EETUQ1E333D_	A	(No suffix)	J		
	35 x 30	6.84	7.87	0.020	0.016	EETUQ1E333E_	A	(No suffix)	J		
39000	30 x 45	7.36	8.46	0.020	0.016	EETUQ1E393D_	A	(No suffix)	J		
	35 x 35	7.36	8.46	0.020	0.016	EETUQ1E393E_	A	(No suffix)	J		
47000	30 x 50	8.00	9.20	0.019	0.016	EETUQ1E473D_	A	(No suffix)	J		
	35 x 40	8.00	9.20	0.019	0.015	EETUQ1E473E_	A	(No suffix)	J		
56000	35 x 45	8.91	10.25	0.019	0.016	EETUQ1E563E_	A	(No suffix)	J		
68000	35 x 50	9.79	11.26	0.018	0.016	EETUQ1E683E_	A	(No suffix)	J		
<b>35 VDC Working, 44 VDC Surge</b>											
5600	22 x 25	3.36	3.86	0.104	0.078	EETUQ1V562B_	A	(No suffix)	J		
8200	22 x 30	4.00	4.60	0.071	0.053	EETUQ1V822B_	A	(No suffix)	J		
	25 x 25	4.00	4.60	0.071	0.053	EETUQ1V822C_	A	(No suffix)	J		
10000	22 x 35	4.42	5.08	0.058	0.044	EETUQ1V103B_	A	(No suffix)	J		
	25 x 30	4.42	5.08	0.058	0.044	EETUQ1V103C_	A	(No suffix)	J		
12000	22 x 40	5.05	5.81	0.048	0.036	EETUQ1V123B_	A	(No suffix)	J		
	25 x 35	5.05	5.81	0.048	0.036	EETUQ1V123C_	A	(No suffix)	J		
	30 x 25	5.05	5.81	0.048	0.036	EETUQ1V123D_	A	(No suffix)	J		
15000	22 x 45	5.57	6.41	0.039	0.029	EETUQ1V153B_	A	(No suffix)	J		
	25 x 40	5.57	6.41	0.039	0.029	EETUQ1V153C_	A	(No suffix)	J		
18000	25 x 45	5.68	6.53	0.032	0.024	EETUQ1V183C_	A	(No suffix)	J		
	30 x 30	5.68	6.53	0.032	0.024	EETUQ1V183D_	A	(No suffix)	J		
	35 x 25	5.68	6.53	0.032	0.024	EETUQ1V183E_	A	(No suffix)	J		
22000	25 x 50	6.10	7.02	0.026	0.020	EETUQ1V223C_	A	(No suffix)	J		
	30 x 35	6.10	7.02	0.026	0.020	EETUQ1V223D_	A	(No suffix)	J		
	35 x 30	6.10	7.02	0.026	0.020	EETUQ1V223E_	A	(No suffix)	J		
27000	30 x 45	6.84	7.87	0.021	0.016	EETUQ1V273D_	A	(No suffix)	J		
	35 x 35	6.84	7.87	0.021	0.016	EETUQ1V273E_	A	(No suffix)	J		
33000	30 x 50	7.15	8.22	0.018	0.013	EETUQ1V333D_	A	(No suffix)	J		
	35 x 40	7.15	8.22	0.018	0.014	EETUQ1V333E_	A	(No suffix)	J		
39000	35 x 45	7.91	9.10	0.017	0.014	EETUQ1V393E_	A	(No suffix)	J		
47000	35 x 50	8.56	9.84	0.017	0.014	EETUQ1V473E_	A	(No suffix)	J		
<b>50 VDC Working, 63 VDC Surge</b>											
3300	22 x 25	2.73	3.14	0.151	0.113	EETUQ1H332B_	A	(No suffix)	J		
4700	22 x 30	3.03	3.48	0.106	0.079	EETUQ1H472B_	A	(No suffix)	J		
	25 x 25	3.03	3.48	0.106	0.079	EETUQ1H472C_	A	(No suffix)	J		
5600	22 x 35	3.42	3.93	0.089	0.067	EETUQ1H562B_	A	(No suffix)	J		
6800	22 x 40	3.85	4.43	0.073	0.055	EETUQ1H682B_	A	(No suffix)	J		
	25 x 30	3.85	4.43	0.073	0.055	EETUQ1H682C_	A	(No suffix)	J		
	30 x 25	3.85	4.43	0.073	0.055	EETUQ1H682D_	A	(No suffix)	J		
8200	22 x 45	4.41	5.07	0.061	0.045	EETUQ1H822B_	A	(No suffix)	J		
	25 x 35	4.41	5.07	0.061	0.045	EETUQ1H822C_	A	(No suffix)	J		
10000	22 x 50	4.97	5.72	0.050	0.037	EETUQ1H103B_	A	(No suffix)	J		
	25 x 40	4.97	5.72	0.050	0.037	EETUQ1H103C_	A	(No suffix)	J		
	30 x 30	4.97	5.72	0.050	0.037	EETUQ1H103D_	A	(No suffix)	J		
	35 x 25	4.97	5.72	0.050	0.037	EETUQ1H103E_	A	(No suffix)	J		
12000	25 x 45	5.58	6.42	0.041	0.031	EETUQ1H123C_	A	(No suffix)	J		
	30 x 35	5.58	6.42	0.041	0.031	EETUQ1H123D_	A	(No suffix)	J		
	35 x 30	5.58	6.42	0.041	0.031	EETUQ1H123E_	A	(No suffix)	J		

### TS-UQ Standard Ratings (continued)

Cap. ( $\mu$ F)	Size (mm) D x L	Max 85°C R.C. ( $A_{rms}$ )		20°C ESR ( $\Omega$ , max.)		Panasonic Part Number	Part Number Suffix Slewing Options		
		120Hz	10kHz~	120Hz	20kHz		PVC with Top Plate	PVC without Top Plate	PET without Top Plate
<b>50 VDC Working, 63 VDC Surge (continued)</b>									
15000	30 x 40	6.44	7.41	0.033	0.025	EETUQ1H153D_	A	(No suffix)	J
	35 x 35	6.44	7.41	0.033	0.025	EETUQ1H153E_	A	(No suffix)	J
18000	30 x 45	6.94	7.98	0.028	0.021	EETUQ1H183D_	A	(No suffix)	J
	35 x 40	6.94	7.98	0.028	0.021	EETUQ1H183E_	A	(No suffix)	J
22000	35 x 45	7.57	8.71	0.023	0.018	EETUQ1H223E_	A	(No suffix)	J
27000	35 x 50	8.96	10.30	0.018	0.015	EETUQ1H273E_	A	(No suffix)	J
<b>63 VDC Working, 79 VDC Surge</b>									
2200	22 x 25	2.52	2.90	0.188	0.141	EETUQ1J222B_	A	(No suffix)	J
3300	22 x 30	4.10	4.72	0.126	0.094	EETUQ1J332B_	A	(No suffix)	J
	25 x 25	4.10	4.72	0.126	0.094	EETUQ1J332C_	A	(No suffix)	J
3900	22 x 35	4.44	5.11	0.106	0.080	EETUQ1J392B_	A	(No suffix)	J
	25 x 30	4.44	5.11	0.106	0.080	EETUQ1J392C_	A	(No suffix)	J
4700	22 x 40	4.86	5.59	0.088	0.066	EETUQ1J472B_	A	(No suffix)	J
	25 x 35	4.86	5.59	0.088	0.066	EETUQ1J472C_	A	(No suffix)	J
	30 x 25	4.86	5.59	0.088	0.066	EETUQ1J472D_	A	(No suffix)	J
5600	22 x 45	5.36	6.16	0.074	0.056	EETUQ1J562B_	A	(No suffix)	J
	25 x 40	5.36	6.16	0.074	0.056	EETUQ1J562C_	A	(No suffix)	J
6800	25 x 45	5.84	6.72	0.061	0.046	EETUQ1J682C_	A	(No suffix)	J
	30 x 30	5.84	6.72	0.061	0.046	EETUQ1J682D_	A	(No suffix)	J
	35 x 25	5.84	6.72	0.061	0.046	EETUQ1J682E_	A	(No suffix)	J
8200	25 x 50	6.00	6.90	0.051	0.038	EETUQ1J822C_	A	(No suffix)	J
	30 x 35	6.00	6.90	0.051	0.038	EETUQ1J822D_	A	(No suffix)	J
	35 x 30	6.00	6.90	0.051	0.038	EETUQ1J822E_	A	(No suffix)	J
10000	30 x 40	6.52	7.50	0.041	0.031	EETUQ1J103D_	A	(No suffix)	J
	35 x 35	6.52	7.50	0.041	0.031	EETUQ1J103E_	A	(No suffix)	J
12000	30 x 45	7.15	8.22	0.035	0.026	EETUQ1J123D_	A	(No suffix)	J
	35 x 40	7.15	8.22	0.035	0.026	EETUQ1J123E_	A	(No suffix)	J
15000	35 x 45	7.91	9.10	0.028	0.021	EETUQ1J153E_	A	(No suffix)	J
18000	35 x 50	8.55	9.83	0.023	0.018	EETUQ1J183E_	A	(No suffix)	J
<b>80 VDC Working, 100 VDC Surge</b>									
1500	22 x 25	2.26	2.60	0.221	0.166	EETUQ1K152B_	A	(No suffix)	J
1800	22 x 30	2.52	2.90	0.184	0.138	EETUQ1K182B_	A	(No suffix)	J
2200	22 x 35	2.73	3.14	0.151	0.113	EETUQ1K222B_	A	(No suffix)	J
	25 x 25	2.73	3.14	0.151	0.113	EETUQ1K222C_	A	(No suffix)	J
2700	22 x 40	2.78	3.20	0.123	0.092	EETUQ1K272B_	A	(No suffix)	J
	25 x 30	2.78	3.20	0.123	0.092	EETUQ1K272C_	A	(No suffix)	J
3300	22 x 45	3.21	3.69	0.100	0.075	EETUQ1K332B_	A	(No suffix)	J
	25 x 35	3.21	3.69	0.100	0.075	EETUQ1K332C_	A	(No suffix)	J
	30 x 25	3.21	3.69	0.100	0.075	EETUQ1K332D_	A	(No suffix)	J
3900	22 x 50	3.59	4.13	0.085	0.064	EETUQ1K392B_	A	(No suffix)	J
	25 x 40	3.59	4.13	0.085	0.064	EETUQ1K392C_	A	(No suffix)	J
	35 x 25	3.59	4.13	0.085	0.064	EETUQ1K392E_	A	(No suffix)	J
4700	25 x 45	4.09	4.70	0.071	0.053	EETUQ1K472C_	A	(No suffix)	J
	30 x 30	4.09	4.70	0.071	0.053	EETUQ1K472D_	A	(No suffix)	J
5600	25 x 50	4.55	5.23	0.059	0.044	EETUQ1K562C_	A	(No suffix)	J
	30 x 35	4.55	5.23	0.059	0.044	EETUQ1K562D_	A	(No suffix)	J
	35 x 30	4.55	5.23	0.059	0.044	EETUQ1K562E_	A	(No suffix)	J
6800	30 x 45	5.16	5.93	0.049	0.037	EETUQ1K682D_	A	(No suffix)	J
	35 x 35	5.16	5.93	0.049	0.037	EETUQ1K682E_	A	(No suffix)	J
8200	30 x 50	5.83	6.70	0.040	0.030	EETUQ1K822D_	A	(No suffix)	J
	35 x 40	5.83	6.70	0.040	0.030	EETUQ1K822E_	A	(No suffix)	J
10000	35 x 45	6.51	7.49	0.033	0.025	EETUQ1K103E_	A	(No suffix)	J
12000	35 x 50	7.28	8.37	0.028	0.021	EETUQ1K123E_	A	(No suffix)	J
<b>100 VDC Working, 125 VDC Surge</b>									
1000	22 x 25	1.96	2.25	0.332	0.216	EETUQ2A102B_	A	(No suffix)	J
1200	25 x 25	2.31	2.66	0.276	0.180	EETUQ2A122C_	A	(No suffix)	J
1500	22 x 30	2.57	2.96	0.221	0.144	EETUQ2A152B_	A	(No suffix)	J
1800	22 x 35	2.84	3.27	0.184	0.120	EETUQ2A182B_	A	(No suffix)	J
	25 x 30	2.84	3.27	0.184	0.120	EETUQ2A182C_	A	(No suffix)	J
2200	22 x 45	3.14	3.61	0.151	0.098	EETUQ2A222B_	A	(No suffix)	J
	25 x 35	3.14	3.61	0.151	0.098	EETUQ2A222C_	A	(No suffix)	J
	30 x 25	3.14	3.61	0.151	0.098	EETUQ2A222D_	A	(No suffix)	J

### TS-UQ Standard Ratings (continued)

Cap. ( $\mu$ F)	Size (mm) D x L	Max 85°C R.C. ( $A_{rms}$ )				20°C ESR ( $\Omega$ , max.)		Panasonic Part Number	Part Number Suffix Slewing Options		
		120Hz	10kHz~	120Hz	20kHz	PVC with Top Plate	PVC without Top Plate		PET without Top Plate		
<b>100 VDC Working, 125 VDC Surge (continued)</b>											
2700	22 x 50	3.71	4.27	0.123	0.080	EETUQ2A272B_	A	(No suffix)	J		
	25 x 40	3.71	4.27	0.123	0.080	EETUQ2A272C_	A	(No suffix)	J		
	30 x 30	3.71	4.27	0.123	0.080	EETUQ2A272D_	A	(No suffix)	J		
	35 x 25	3.71	4.27	0.123	0.080	EETUQ2A272E_	A	(No suffix)	J		
3300	25 x 45	4.06	4.67	0.100	0.065	EETUQ2A332C_	A	(No suffix)	J		
	30 x 35	4.06	4.67	0.100	0.065	EETUQ2A332D_	A	(No suffix)	J		
3900	25 x 50	4.54	5.22	0.085	0.055	EETUQ2A392C_	A	(No suffix)	J		
	30 x 40	4.54	5.22	0.085	0.055	EETUQ2A392D_	A	(No suffix)	J		
	35 x 30	4.54	5.22	0.085	0.055	EETUQ2A392E_	A	(No suffix)	J		
4700	30 x 45	5.13	5.90	0.071	0.046	EETUQ2A472D_	A	(No suffix)	J		
	35 x 35	5.13	5.90	0.071	0.046	EETUQ2A472E_	A	(No suffix)	J		
5600	30 x 50	5.75	6.61	0.059	0.041	EETUQ2A562D_	A	(No suffix)	J		
	35 x 40	5.75	6.61	0.059	0.038	EETUQ2A562E_	A	(No suffix)	J		
6800	35 x 45	6.60	7.59	0.049	0.034	EETUQ2A682E_	A	(No suffix)	J		
8200	35 x 50	7.29	8.38	0.040	0.030	EETUQ2A822E_	A	(No suffix)	J		
<b>160 VDC Working, 200 VDC Surge</b>											
560	22 x 25	2.25	3.15	0.355	0.160	EETUQ2C561B_	A	(No suffix)	J		
680	22 x 30	2.50	3.50	0.293	0.132	EETUQ2C681B_	A	(No suffix)	J		
820	22 x 35	2.75	3.85	0.243	0.109	EETUQ2C821B_	A	(No suffix)	J		
1000	22 x 40	3.00	4.20	0.199	0.090	EETUQ2C102B_	A	(No suffix)	J		
	25 x 30	3.00	4.20	0.199	0.090	EETUQ2C102C_	A	(No suffix)	J		
1200	22 x 45	3.25	4.55	0.166	0.075	EETUQ2C122B_	A	(No suffix)	J		
	25 x 35	3.25	4.55	0.166	0.075	EETUQ2C122C_	A	(No suffix)	J		
	30 x 25	3.25	4.55	0.166	0.075	EETUQ2C122D_	A	(No suffix)	J		
1500	22 x 50	3.73	5.22	0.133	0.060	EETUQ2C152B_	A	(No suffix)	J		
	25 x 40	3.73	5.22	0.133	0.060	EETUQ2C152C_	A	(No suffix)	J		
	30 x 30	3.73	5.22	0.133	0.060	EETUQ2C152D_	A	(No suffix)	J		
	35 x 25	3.73	5.22	0.133	0.060	EETUQ2C152E_	A	(No suffix)	J		
1800	25 x 45	4.20	5.88	0.111	0.050	EETUQ2C182C_	A	(No suffix)	J		
	30 x 35	4.20	5.88	0.120	0.060	EETUQ2C182D_	A	(No suffix)	J		
	35 x 30	4.20	5.88	0.111	0.050	EETUQ2C182E_	A	(No suffix)	J		
2200	30 x 40	4.78	6.69	0.090	0.041	EETUQ2C222D_	A	(No suffix)	J		
	35 x 35	4.78	6.69	0.098	0.049	EETUQ2C222E_	A	(No suffix)	J		
2700	30 x 45	5.45	7.63	0.074	0.033	EETUQ2C272D_	A	(No suffix)	J		
	35 x 40	5.45	7.63	0.080	0.040	EETUQ2C272E_	A	(No suffix)	J		
3300	35 x 45	5.75	8.05	0.070	0.035	EETUQ2C332E_	A	(No suffix)	J		
3900	35 x 50	6.00	8.40	0.055	0.028	EETUQ2C392E_	A	(No suffix)	J		
<b>200 VDC Working, 250 VDC Surge</b>											
390	22 x 25	1.68	2.35	0.510	0.230	EETUQ2D391B_	A	(No suffix)	J		
470	22 x 30	1.85	2.59	0.423	0.190	EETUQ2D471B_	A	(No suffix)	J		
560	22 x 30	2.43	3.40	0.355	0.160	EETUQ2D561B_	A	(No suffix)	J		
	25 x 25	2.43	3.40	0.355	0.160	EETUQ2D561C_	A	(No suffix)	J		
680	22 x 35	2.68	3.75	0.293	0.132	EETUQ2D681B_	A	(No suffix)	J		
	25 x 30	2.68	3.75	0.293	0.132	EETUQ2D681C_	A	(No suffix)	J		
820	22 x 40	2.93	4.10	0.243	0.109	EETUQ2D821B_	A	(No suffix)	J		
	25 x 30	2.93	4.10	0.243	0.109	EETUQ2D821C_	A	(No suffix)	J		
	30 x 25	2.93	4.10	0.243	0.109	EETUQ2D821D_	A	(No suffix)	J		
1000	22 x 45	3.25	4.55	0.199	0.090	EETUQ2D102B_	A	(No suffix)	J		
	25 x 35	3.25	4.55	0.199	0.090	EETUQ2D102C_	A	(No suffix)	J		
	30 x 30	3.25	4.55	0.199	0.090	EETUQ2D102D_	A	(No suffix)	J		
	35 x 25	3.25	4.55	0.232	0.116	EETUQ2D102E_	A	(No suffix)	J		
1200	22 x 50	3.50	4.90	0.166	0.075	EETUQ2D122B_	A	(No suffix)	J		
	25 x 40	3.50	4.90	0.166	0.075	EETUQ2D122C_	A	(No suffix)	J		
	30 x 30	3.50	4.90	0.166	0.075	EETUQ2D122D_	A	(No suffix)	J		
1500	25 x 50	3.87	5.42	0.133	0.060	EETUQ2D152C_	A	(No suffix)	J		
	30 x 35	3.87	5.42	0.144	0.065	EETUQ2D152D_	A	(No suffix)	J		
	35 x 30	3.87	5.42	0.144	0.065	EETUQ2D152E_	A	(No suffix)	J		
1800	30 x 45	4.32	6.05	0.120	0.060	EETUQ2D182D_	A	(No suffix)	J		
	35 x 35	4.32	6.05	0.120	0.060	EETUQ2D182E_	A	(No suffix)	J		
2200	30 x 50	4.92	6.89	0.098	0.049	EETUQ2D222D_	A	(No suffix)	J		
	35 x 40	4.92	6.89	0.105	0.053	EETUQ2D222E_	A	(No suffix)	J		
2700	35 x 50	5.45	7.63	0.086	0.043	EETUQ2D272E_	A	(No suffix)	J		

### TS-UQ Standard Ratings (continued)

Cap. ( $\mu$ F)	Size (mm) D x L	Max 85°C R.C. ( $A_{rms}$ )				20°C ESR ( $\Omega$ , max.)		Panasonic Part Number	Part Number Suffix Slewing Options		
		120Hz	10kHz~	120Hz	20kHz	PVC with Top Plate	PVC without Top Plate		PET without Top Plate		
<b>250 VDC Working, 300 VDC Surge</b>											
270	22 x 25	1.31	1.83	0.737	0.332	EETUQ2E271B_	A	(No suffix)	J		
330	22 x 30	1.75	2.45	0.603	0.271	EETUQ2E331B_	A	(No suffix)	J		
390	22 x 30	1.91	2.67	0.510	0.230	EETUQ2E391B_	A	(No suffix)	J		
	25 x 25	1.91	2.67	0.510	0.230	EETUQ2E391C_	A	(No suffix)	J		
470	22 x 35	2.11	2.95	0.423	0.190	EETUQ2E471B_	A	(No suffix)	J		
	25 x 30	2.11	2.95	0.423	0.190	EETUQ2E471C_	A	(No suffix)	J		
560	22 x 40	2.25	3.15	0.355	0.160	EETUQ2E561B_	A	(No suffix)	J		
	25 x 30	2.25	3.15	0.355	0.160	EETUQ2E561C_	A	(No suffix)	J		
	30 x 25	2.25	3.15	0.355	0.160	EETUQ2E561D_	A	(No suffix)	J		
680	22 x 45	2.50	3.50	0.293	0.132	EETUQ2E681B_	A	(No suffix)	J		
	25 x 35	2.50	3.50	0.293	0.132	EETUQ2E681C_	A	(No suffix)	J		
	30 x 25	2.30	3.22	0.293	0.132	EETUQ2E681D_	F	U	C		
	30 x 30	2.50	3.50	0.293	0.132	EETUQ2E681D_	A	(No suffix)	J		
820	22 x 50	2.77	3.88	0.243	0.109	EETUQ2E821B_	A	(No suffix)	J		
	25 x 40	2.77	3.88	0.243	0.109	EETUQ2E821C_	A	(No suffix)	J		
	30 x 30	2.77	3.88	0.243	0.109	EETUQ2E821D_	A	(No suffix)	J		
	35 x 25	2.77	3.88	0.243	0.121	EETUQ2E821E_	A	(No suffix)	J		
1000	25 x 45	3.32	4.65	0.199	0.090	EETUQ2E102C_	A	(No suffix)	J		
	30 x 35	3.32	4.65	0.199	0.090	EETUQ2E102D_	A	(No suffix)	J		
	35 x 30	3.32	4.65	0.199	0.090	EETUQ2E102E_	A	(No suffix)	J		
1200	30 x 40	3.53	4.94	0.166	0.075	EETUQ2E122D_	A	(No suffix)	J		
	35 x 35	3.53	4.94	0.166	0.083	EETUQ2E122E_	A	(No suffix)	J		
1500	30 x 50	4.04	5.66	0.133	0.066	EETUQ2E152D_	A	(No suffix)	J		
	35 x 40	4.04	5.66	0.133	0.066	EETUQ2E152E_	A	(No suffix)	J		
1800	35 x 45	4.55	6.37	0.111	0.055	EETUQ2E182E_	A	(No suffix)	J		
2200	35 x 50	4.75	6.65	0.098	0.049	EETUQ2E222E_	A	(No suffix)	J		
<b>350 VDC Working, 400 VDC Surge</b>											
150	22 x 25	1.12	1.57	1.326	0.663	EETUQ2V151B_	A	(No suffix)	J		
180	22 x 30	1.22	1.71	1.105	0.553	EETUQ2V181B_	A	(No suffix)	J		
220	22 x 35	1.44	2.02	0.904	0.452	EETUQ2V221B_	A	(No suffix)	J		
270	22 x 40	1.66	2.32	0.737	0.368	EETUQ2V271B_	A	(No suffix)	J		
	25 x 30	1.66	2.32	0.737	0.368	EETUQ2V271C_	A	(No suffix)	J		
330	22 x 45	1.88	2.63	0.603	0.301	EETUQ2V331B_	A	(No suffix)	J		
	25 x 35	1.88	2.63	0.603	0.301	EETUQ2V331C_	A	(No suffix)	J		
390	22 x 50	2.06	2.88	0.510	0.255	EETUQ2V391B_	A	(No suffix)	J		
	25 x 40	2.06	2.88	0.510	0.255	EETUQ2V391C_	A	(No suffix)	J		
	30 x 30	2.06	2.88	0.510	0.255	EETUQ2V391D_	A	(No suffix)	J		
	35 x 25	2.06	2.88	0.510	0.255	EETUQ2V391E_	A	(No suffix)	J		
470	25 x 45	2.40	3.36	0.423	0.212	EETUQ2V471C_	A	(No suffix)	J		
	30 x 35	2.40	3.36	0.423	0.212	EETUQ2V471D_	A	(No suffix)	J		
	35 x 30	2.40	3.36	0.423	0.233	EETUQ2V471E_	A	(No suffix)	J		
560	25 x 50	2.60	3.64	0.355	0.178	EETUQ2V561C_	A	(No suffix)	J		
	30 x 40	2.60	3.64	0.355	0.178	EETUQ2V561D_	A	(No suffix)	J		
	35 x 30	2.60	3.64	0.355	0.195	EETUQ2V561E_	A	(No suffix)	J		
680	30 x 45	2.96	4.14	0.293	0.146	EETUQ2V681D_	A	(No suffix)	J		
	35 x 35	2.96	4.14	0.293	0.146	EETUQ2V681E_	A	(No suffix)	J		
820	30 x 50	3.25	4.55	0.243	0.121	EETUQ2V821D_	A	(No suffix)	J		
	35 x 45	3.25	4.55	0.243	0.121	EETUQ2V821E_	A	(No suffix)	J		
1000	35 x 50	3.54	4.96	0.199	0.109	EETUQ2V102E_	A	(No suffix)	J		
<b>400 VDC Working, 450 VDC Surge</b>											
120	22 x 25	1.02	1.43	1.658	0.829	EETUQ2G121B_	A	(No suffix)	J		
150	22 x 30	1.16	1.62	1.326	0.663	EETUQ2G151B_	A	(No suffix)	J		
180	22 x 30	1.30	1.82	1.105	0.553	EETUQ2G181B_	F	U	C		
	22 x 35	1.44	2.02	1.105	0.553	EETUQ2G181B_	A	(No suffix)	J		
220	22 x 35	1.40	1.96	0.904	0.452	EETUQ2G221B_	F	U	C		
	22 x 40	1.49	2.09	0.904	0.452	EETUQ2G221B_	A	(No suffix)	J		
	25 x 30	1.49	2.09	0.904	0.452	EETUQ2G221C_	A	(No suffix)	J		
270	22 x 45	1.67	2.34	0.737	0.368	EETUQ2G271B_	A	(No suffix)	J		
	25 x 35	1.67	2.34	0.737	0.368	EETUQ2G271C_	A	(No suffix)	J		
	30 x 30	1.67	2.34	0.737	0.368	EETUQ2G271D_	A	(No suffix)	J		
330	22 x 50	1.90	2.66	0.603	0.301	EETUQ2G331B_	A	(No suffix)	J		
	25 x 40	1.90	2.66	0.603	0.301	EETUQ2G331C_	A	(No suffix)	J		

### TS-UQ Standard Ratings (continued)

Cap. ( $\mu$ F)	Size (mm) D x L	Max 85°C R.C. ( $A_{rms}$ )				20°C ESR ( $\Omega$ , max.)		Panasonic Part Number	Part Number Suffix Slewing Options		
		120Hz	10kHz~	120Hz	20kHz	PVC with Top Plate	PVC without Top Plate		PET without Top Plate		
<b>400 VDC Working, 450 VDC Surge (continued)</b>											
330	30 x 30	1.90	2.66	0.603	0.301	EETUQ2G331D_	A	(No suffix)	J		
	35 x 25	1.90	2.66	0.603	0.301	EETUQ2G331E_	A	(No suffix)	J		
390	25 x 45	2.13	2.98	0.510	0.255	EETUQ2G391C_	A	(No suffix)	J		
	30 x 35	2.13	2.98	0.510	0.255	EETUQ2G391D_	A	(No suffix)	J		
	35 x 30	2.13	2.98	0.510	0.255	EETUQ2G391E_	A	(No suffix)	J		
470	25 x 50	2.39	3.35	0.423	0.212	EETUQ2G471C_	A	(No suffix)	J		
	30 x 40	2.39	3.35	0.423	0.212	EETUQ2G471D_	A	(No suffix)	J		
	35 x 30	2.39	3.35	0.423	0.212	EETUQ2G471E_	A	(No suffix)	J		
560	30 x 45	2.69	3.77	0.355	0.178	EETUQ2G561D_	A	(No suffix)	J		
	35 x 35	2.69	3.77	0.355	0.178	EETUQ2G561E_	A	(No suffix)	J		
680	35 x 40	2.70	3.78	0.293	0.146	EETUQ2G681E_	F	U	C		
	30 x 50	2.96	4.14	0.293	0.146	EETUQ2G681D_	A	(No suffix)	J		
	35 x 45	2.96	4.14	0.293	0.146	EETUQ2G681E_	A	(No suffix)	J		
820	35 x 45	2.96	4.14	0.243	0.121	EETUQ2G821E_	F	U	C		
	35 x 50	3.25	4.55	0.243	0.121	EETUQ2G821E_	A	(No suffix)	J		
<b>420 VDC Working, 470 VDC Surge</b>											
150	22 x 30	1.18	1.65	1.326	0.663	EETUQ2S151B_	A	(No suffix)	J		
	25 x 25	1.18	1.65	1.326	0.663	EETUQ2S151C_	A	(No suffix)	J		
180	22 x 35	1.40	1.96	1.105	0.553	EETUQ2S181B_	A	(No suffix)	J		
220	22 x 40	1.52	2.13	0.904	0.452	EETUQ2S221B_	A	(No suffix)	J		
	25 x 35	1.52	2.13	0.904	0.452	EETUQ2S221C_	A	(No suffix)	J		
	30 x 25	1.52	2.13	0.904	0.452	EETUQ2S221D_	A	(No suffix)	J		
270	22 x 45	1.73	2.42	0.737	0.368	EETUQ2S271B_	A	(No suffix)	J		
	25 x 40	1.73	2.42	0.737	0.368	EETUQ2S271C_	A	(No suffix)	J		
330	25 x 45	1.95	2.73	0.603	0.301	EETUQ2S331C_	A	(No suffix)	J		
	30 x 30	1.95	2.73	0.603	0.301	EETUQ2S331D_	A	(No suffix)	J		
390	25 x 50	2.17	3.04	0.510	0.255	EETUQ2S391C_	A	(No suffix)	J		
	30 x 35	2.17	3.04	0.510	0.255	EETUQ2S391D_	A	(No suffix)	J		
	35 x 30	2.17	3.04	0.510	0.255	EETUQ2S391E_	A	(No suffix)	J		
470	30 x 40	2.44	3.42	0.423	0.212	EETUQ2S471D_	A	(No suffix)	J		
	35 x 35	2.44	3.42	0.423	0.212	EETUQ2S471E_	A	(No suffix)	J		
560	30 x 45	2.74	3.84	0.355	0.178	EETUQ2S561D_	A	(No suffix)	J		
	35 x 40	2.74	3.84	0.355	0.178	EETUQ2S561E_	A	(No suffix)	J		
680	35 x 45	3.11	4.35	0.293	0.146	EETUQ2S681E_	A	(No suffix)	J		
<b>450 VDC Working, 500 VDC Surge</b>											
82	22 x 25	0.83	1.16	2.426	1.213	EETUQ2W820B_	A	(No suffix)	J		
100	22 x 25	0.93	1.30	1.989	0.995	EETUQ2W101B_	A	(No suffix)	J		
120	22 x 30	1.04	1.46	1.658	0.829	EETUQ2W121B_	A	(No suffix)	J		
150	22 x 35	1.19	1.67	1.326	0.663	EETUQ2W151B_	A	(No suffix)	J		
	25 x 30	1.19	1.67	1.326	0.663	EETUQ2W151C_	A	(No suffix)	J		
180	22 x 40	1.35	1.89	1.105	0.553	EETUQ2W181B_	A	(No suffix)	J		
	25 x 30	1.35	1.89	1.105	0.553	EETUQ2W181C_	A	(No suffix)	J		
220	22 x 45	1.55	2.17	0.904	0.452	EETUQ2W221B_	A	(No suffix)	J		
	25 x 35	1.45	2.03	0.904	0.452	EETUQ2W221C_	F	U	C		
	25 x 40	1.55	2.17	0.904	0.452	EETUQ2W221C_	A	(No suffix)	J		
	30 x 30	1.55	2.17	0.904	0.452	EETUQ2W221D_	A	(No suffix)	J		
	35 x 25	1.55	2.17	0.904	0.452	EETUQ2W221E_	A	(No suffix)	J		
270	22 x 50	1.78	2.49	0.737	0.368	EETUQ2W271B_	A	(No suffix)	J		
	25 x 40	1.78	2.49	0.737	0.368	EETUQ2W271C_	A	(No suffix)	J		
	30 x 30	1.78	2.49	0.737	0.368	EETUQ2W271D_	A	(No suffix)	J		
330	25 x 50	2.01	2.81	0.603	0.301	EETUQ2W331C_	A	(No suffix)	J		
	30 x 35	1.88	2.63	0.603	0.301	EETUQ2W331D_	F	U	C		
	30 x 40	2.01	2.81	0.603	0.301	EETUQ2W331D_	A	(No suffix)	J		
	35 x 30	2.01	2.81	0.603	0.301	EETUQ2W331E_	A	(No suffix)	J		
390	30 x 40	2.24	3.14	0.510	0.255	EETUQ2W391D_	A	(No suffix)	J		
	35 x 35	2.24	3.14	0.510	0.255	EETUQ2W391E_	A	(No suffix)	J		
470	30 x 45	2.53	3.54	0.423	0.212	EETUQ2W471D_	A	(No suffix)	J		
	35 x 40	2.53	3.54	0.423	0.212	EETUQ2W471E_	A	(No suffix)	J		
560	30 x 50	2.82	3.95	0.355	0.178	EETUQ2W561D_	A	(No suffix)	J		
	35 x 45	2.82	3.95	0.355	0.178	EETUQ2W561E_	A	(No suffix)	J		
680	35 x 50	3.02	4.23	0.293	0.146	EETUQ2W681E_	A	(No suffix)	J		