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T-UP Series 85°C, 3000 hours

- 4 or 5 terminal mounting provides stability and keyed polarity
- Extended CV ratings
- Can vent construction



Rated Working Voltage:	16 ~ 250 VDC	350 ~ 500 VDC											
Operating Temperature:	-40 ~ +85°C	-25 ~ +85°C											
Nominal Capacitance:	1200~270000µF	270~2700µF											
Capacitance Tolerance:	± 20%												
Dissipation Factor: (120 Hz, +20°C)	Working Voltage [V]:	16	25	35	50	63	80	100	160 ~ 500				
	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:	3000 hours at +85°C with maximum specified ripple current (see page 4)												

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

Part Number System

RoHS compliant PVC sleeve and top plate is standard.

Terminals	
Prefix	No. of Pins
ECEC	4
ECEP	5

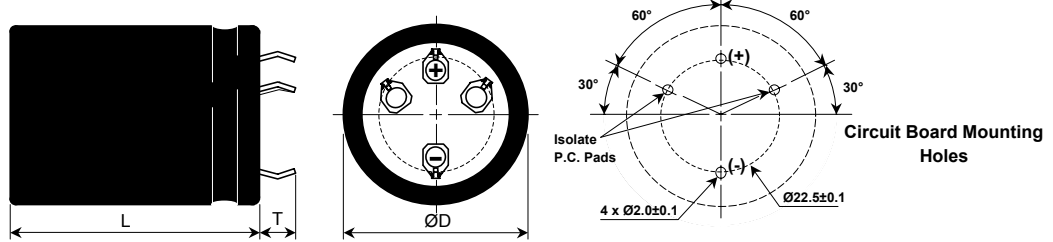
Voltage Code													
1C	1E	1V	1H	1J	1K	2A	2C	2D	2E	2V	2G	2W	2H
16	25	35	50	63	80	100	160	200	250	350	400	450	500

Diameter Code	
Dia.	Code
35	E
40	F
50	H

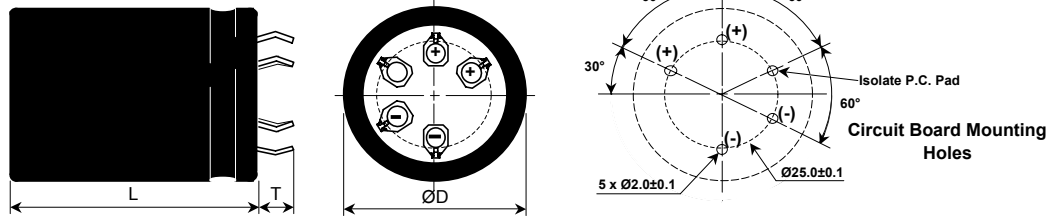
Terminal Suffix Code		
Terminal Type	Standard Ratings	Extended Ratings
6.3mm Snap-in (Standard):	A	X
4.0mm Snap-in:	4	5
4.0mm Straight with Standoff:	E	Y

Dimensions in millimeters

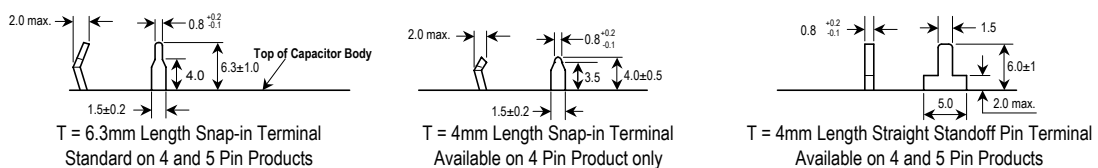
4 Pin Mounting Style



5 Pin Mounting Style



Pin Dimensions



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## T-UP Standard Ratings

Part numbers shown with 6.3mm Length Snap-in Terminals

Cap. ( $\mu$ F)	Size (mm) D x L	Max 85°C R.C. ( $A_{rms}$ )		20°C ESR ( $\Omega$ , max.)		Panasonic Part Number	
		120Hz	10kHz~	120Hz	20kHz	4 Pin Style	5 Pin Style
<b>16 VDC Working, 20 VDC Surge</b>							
47000	35 x 40	7.47	8.59	0.021	0.019	ECET1CP473EA	
56000	40 x 40	9.05	10.41	0.022	0.021	ECET1CP563FA	ECEP1CP563FA
68000	35 x 50	9.05	10.41	0.018	0.017	ECET1CP683EA	
82000	35 x 63	10.02	11.52	0.016	0.015	ECET1CP823EA	
	40 x 50	10.29	11.83	0.016	0.015	ECET1CP823FA	ECEP1CP823FA
100000	35 x 80	11.00	12.65	0.015	0.014	ECET1CP104EA	
	40 x 63	11.36	13.06	0.018	0.017	ECET1CP104FA	ECEP1CP104FA
120000	35 x 105	12.81	14.73	0.014	0.013	ECET1CP124EA	
	40 x 80	12.42	14.28	0.017	0.016	ECET1CP124FA	ECEP1CP124FA
	50 x 50	13.17	15.15	0.014	0.013		ECEP1CP124HA
150000	50 x 63	14.40	16.56	0.012	0.011		ECEP1CP154HA
	40 x 105	14.85	17.08	0.013	0.012	ECET1CP184FA	ECEP1CP184FA
180000	50 x 80	15.69	18.04	0.011	0.010		ECEP1CP184HA
	50 x 92	16.73	19.24	0.010	0.009		ECEP1CP224HA
270000	50 x 105	17.79	20.46	0.009	0.008		ECEP1CP274HA
<b>25 VDC Working, 32 VDC Surge</b>							
33000	35 x 40	6.84	7.87	0.019	0.015	ECET1EP333EA	
39000	40 x 40	8.00	9.20	0.020	0.018	ECET1EP393FA	ECEP1EP393FA
47000	35 x 50	8.00	9.20	0.014	0.012	ECET1EP473EA	
56000	35 x 63	8.85	10.18	0.015	0.013	ECET1EP563EA	
	40 x 50	8.96	10.30	0.016	0.015	ECET1EP563FA	ECEP1EP563FA
68000	35 x 80	10.43	11.99	0.013	0.011	ECET1EP683EA	
	40 x 63	10.25	11.79	0.017	0.015	ECET1EP683FA	ECEP1EP683FA
82000	50 x 50	12.29	14.13	0.016	0.015		ECEP1EP823HA
100000	35 x 105	11.97	13.77	0.010	0.008	ECET1EP104EA	
	40 x 80	12.08	13.89	0.012	0.011	ECET1EP104FA	ECEP1EP104FA
	50 x 63	13.45	15.47	0.014	0.013		ECEP1EP104HA
120000	50 x 80	15.29	17.58	0.012	0.011		ECEP1EP124HA
	40 x 105	14.07	16.18	0.011	0.010	ECET1EP154FA	ECEP1EP154FA
150000	50 x 92	16.01	18.41	0.011	0.010		ECEP1EP154HA
	50 x 105	16.89	19.42	0.010	0.009		ECEP1EP184HA
<b>35 VDC Working, 44 VDC Surge</b>							
22000	35 x 40	6.10	7.02	0.026	0.020	ECET1VP223EA	
27000	40 x 40	6.84	7.87	0.021	0.017	ECET1VP273FA	ECEP1VP273FA
33000	35 x 50	7.15	8.22	0.018	0.014	ECET1VP333EA	
39000	35 x 63	7.94	9.13	0.015	0.012	ECET1VP393EA	
	40 x 50	7.98	9.18	0.017	0.014	ECET1VP393FA	ECEP1VP393FA
47000	35 x 80	9.53	10.96	0.014	0.011	ECET1VP473EA	
	40 x 63	9.58	11.02	0.016	0.013	ECET1VP473FA	ECEP1VP473FA
56000	40 x 80	10.30	11.85	0.015	0.012	ECET1VP563FA	ECEP1VP563FA
	50 x 50	10.94	12.58	0.015	0.012		ECEP1VP563HA
68000	35 x 105	10.62	12.21	0.010	0.008	ECET1VP683EA	
	50 x 63	11.93	13.72	0.013	0.011		ECEP1VP683HA
82000	40 x 105	12.02	13.82	0.012	0.009	ECET1VP823FA	ECEP1VP823FA
	50 x 80	13.06	15.02	0.012	0.010		ECEP1VP823HA
100000	50 x 92	13.97	16.07	0.011	0.009		ECEP1VP104HA
120000	50 x 105	14.86	17.09	0.010	0.008		ECEP1VP124HA
<b>50 VDC Working, 63 VDC Surge</b>							
15000	35 x 40	6.44	7.41	0.028	0.021	ECET1HP153EA	
18000	40 x 40	6.94	7.98	0.023	0.017	ECET1HP183FA	ECEP1HP183FA
22000	35 x 50	7.57	8.71	0.021	0.017	ECET1HP223EA	
27000	35 x 63	8.31	9.56	0.018	0.015	ECET1HP273EA	
	40 x 50	8.12	9.34	0.018	0.015	ECET1HP273FA	ECEP1HP273FA
33000	35 x 80	9.23	10.61	0.015	0.012	ECET1HP333EA	
	40 x 63	9.10	10.47	0.018	0.014	ECET1HP333FA	ECEP1HP333FA
	50 x 50	10.48	12.05	0.018	0.014		ECEP1HP333HA
39000	40 x 80	10.12	11.64	0.015	0.012	ECET1HP393FA	ECEP1HP393FA
47000	35 x 105	10.27	11.81	0.014	0.011	ECET1HP473EA	
	50 x 63	11.54	13.27	0.013	0.010		ECEP1HP473HA
56000	40 x 105	11.47	13.19	0.012	0.009	ECET1HP563FA	ECEP1HP563FA
	50 x 80	12.46	14.33	0.012	0.009		ECEP1HP563HA
68000	50 x 92	13.17	15.15	0.011	0.009		ECEP1HP683HA

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## T-UP Standard Ratings (continued)

Part numbers shown with 6.3mm Length Snap-in Terminals

Cap. ( $\mu$ F)	Size (mm) D x L	Max 85°C R.C. ( $A_{rms}$ )		20°C ESR ( $\Omega$ , max.)		Panasonic Part Number	
		120Hz	10kHz~	120Hz	20kHz	4 Pin Style	5 Pin Style
<b>50 VDC Working, 63 VDC Surge (continued)</b>							
82000	50 x 105	13.87	15.95	0.011	0.008		ECEP1HP823HA
<b>63 VDC Working, 79 VDC Surge</b>							
10000	35 x 40	6.52	7.50	0.041	0.033	ECET1JP103EA	
12000	35 x 50	7.15	8.22	0.035	0.028	ECET1JP123EA	
	40 x 40	7.15	8.22	0.035	0.028	ECET1JP123FA	ECEP1JP123FA
15000	35 x 63	7.71	8.87	0.028	0.022	ECET1JP153EA	
	40 x 50	7.53	8.66	0.033	0.027	ECET1JP153FA	ECEP1JP153FA
18000	35 x 80	9.41	10.82	0.023	0.018	ECET1JP183EA	
	40 x 63	9.25	10.64	0.028	0.022	ECET1JP183FA	ECEP1JP183FA
27000	35 x 105	10.38	11.94	0.015	0.012	ECET1JP273EA	
	40 x 80	9.97	11.47	0.018	0.015	ECET1JP273FA	ECEP1JP273FA
	50 x 50	10.86	12.49	0.018	0.015		ECEP1JP273HA
33000	40 x 105	11.76	13.52	0.015	0.012	ECET1JP333FA	ECEP1JP333FA
	50 x 63	11.67	13.42	0.017	0.013		ECEP1JP333HA
47000	50 x 80	12.78	14.70	0.013	0.010		ECEP1JP473HA
51000	50 x 92	13.34	15.34	0.012	0.010		ECEP1JP513HA
56000	50 x 105	13.93	16.02	0.012	0.009		ECEP1JP563HA
<b>80 VDC Working, 105 VDC Surge</b>							
6800	35 x 40	5.16	5.93	0.046	0.035	ECET1KP682EA	
8200	35 x 50	5.83	6.70	0.038	0.029	ECET1KP822EA	
	40 x 40	5.83	6.70	0.038	0.029	ECET1KP822FA	ECEP1KP822FA
10000	35 x 63	6.38	7.34	0.033	0.025	ECET1KP103EA	
	40 x 50	6.56	7.54	0.033	0.025	ECET1KP103FA	ECEP1KP103FA
12000	35 x 80	6.92	7.96	0.028	0.021	ECET1KP123EA	
	40 x 63	7.29	8.38	0.028	0.021	ECET1KP123FA	ECEP1KP123FA
15000	40 x 80	8.93	10.27	0.024	0.018	ECET1KP153FA	ECEP1KP153FA
18000	50 x 50	10.00	11.50	0.023	0.017		ECEP1KP183HA
22000	35 x 105	9.86	11.34	0.015	0.011	ECET1KP223EA	
	50 x 63	11.08	12.74	0.019	0.014		ECEP1KP223HA
27000	40 x 105	11.35	13.05	0.015	0.012	ECET1KP273FA	ECEP1KP273FA
	50 x 80	12.33	14.18	0.015	0.012		ECEP1KP273HA
33000	50 x 92	13.37	15.38	0.014	0.010		ECEP1KP333HA
39000	50 x 105	14.34	16.49	0.013	0.010		ECEP1KP393HA
<b>100 VDC Working, 125 VDC Surge</b>							
4700	35 x 40	5.13	5.90	0.071	0.049	ECET2AP472EA	
5600	40 x 40	5.75	6.61	0.059	0.044	ECET2AP562FA	ECEP2AP562FA
6800	35 x 50	6.60	7.59	0.049	0.037	ECET2AP682EA	
8200	35 x 63	7.05	8.11	0.040	0.030	ECET2AP822EA	
	40 x 50	7.28	8.37	0.040	0.030	ECET2AP822FA	ECEP2AP822FA
10000	35 x 80	7.74	8.90	0.033	0.025	ECET2AP103EA	
	40 x 63	7.97	9.17	0.033	0.025	ECET2AP103FA	ECEP2AP103FA
	50 x 50	8.82	10.14	0.033	0.025		ECEP2AP103HA
12000	35 x 105	8.57	9.86	0.028	0.021	ECET2AP123EA	
	40 x 80	8.65	9.95	0.028	0.021	ECET2AP123FA	ECEP2AP123FA
15000	40 x 105	10.12	11.64	0.022	0.017	ECET2AP153FA	ECEP2AP153FA
	50 x 63	10.07	11.58	0.022	0.017		ECEP2AP153HA
18000	50 x 80	11.00	12.65	0.018	0.014		ECEP2AP183HA
22000	50 x 92	11.76	13.52	0.015	0.011		ECEP2AP223HA
27000	50 x 105	12.53	14.41	0.014	0.010		ECEP2AP273HA
<b>160 VDC Working, 200 VDC Surge</b>							
2200	35 x 40	4.78	6.69	0.098	0.049	ECET2CP222EA	
2700	35 x 50	5.45	7.63	0.080	0.044	ECET2CP272EA	
	40 x 40	5.45	7.63	0.080	0.044	ECET2CP272FA	ECEP2CP272FA
3300	35 x 63	6.29	8.81	0.065	0.036	ECET2CP332EA	
	40 x 50	6.29	8.81	0.065	0.036	ECET2CP332FA	ECEP2CP332FA
3900	35 x 80	7.27	10.18	0.055	0.030	ECET2CP392EA	
	40 x 63	7.27	10.18	0.055	0.030	ECET2CP392FA	ECEP2CP392FA
5600	40 x 80	8.32	11.65	0.038	0.021	ECET2CP562FA	ECEP2CP562FA
	50 x 50	8.25	11.55	0.038	0.021	ECET2CP562HA	ECEP2CP562HA
6800	35 x 105	9.05	12.67	0.032	0.017	ECET2CP682EA	
8200	50 x 63	8.93	12.50	0.026	0.014	ECEP2CP822HA	ECEP2CP822HA
10000	40 x 105	9.86	13.80	0.022	0.012	ECET2CP103FA	ECEP2CP103FA
	50 x 80	9.80	13.72	0.022	0.012		ECEP2CP103HA

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## T-UP Standard Ratings (continued)

Part numbers shown with 6.3mm Length Snap-in Terminals

Cap. ( $\mu$ F)	Size (mm) D x L	Max 85°C R.C. ( $A_{rms}$ )		20°C ESR ( $\Omega$ , max.)		Panasonic Part Number	
		120Hz	10kHz~	120Hz	20kHz	4 Pin Style	5 Pin Style
<b>160 VDC Working, 200 VDC Surge (continued)</b>							
12000	50 x 92	12.93	18.10	0.018	0.010		ECEP2CP123HA
15000	50 x 105	14.10	19.74	0.014	0.008		ECEP2CP153HA
<b>200 VDC Working, 250 VDC Surge</b>							
1800	35 x 40	4.32	6.05	0.120	0.060	ECET2DP182EA	
2200	35 x 50	4.92	6.89	0.098	0.054	ECET2DP222EA	
	40 x 40	4.92	6.89	0.098	0.054	ECET2DP222FA	ECEP2DP222FA
2700	35 x 63	5.50	7.70	0.080	0.044	ECET2DP272EA	
	40 x 50	5.41	7.57	0.080	0.044	ECET2DP272FA	ECEP2DP272FA
3300	35 x 80	6.44	9.02	0.065	0.036	ECET2DP332EA	
	40 x 63	6.32	8.85	0.065	0.036	ECET2DP332FA	ECEP2DP332FA
3900	35 x 80	6.60	9.24	0.055	0.030	ECET2DP392EA	
	40 x 63	6.81	9.53	0.055	0.030	ECET2DP392FX	ECEP2DP392FX
	50 x 50	8.22	11.51	0.055	0.030		ECEP2DP392HA
4700	40 x 80	8.38	11.73	0.046	0.025	ECET2DP472FA	ECEP2DP472FA
	50 x 63	9.32	13.05	0.046	0.025		ECEP2DP472HA
5600	35 x 105	8.90	12.46	0.038	0.021	ECET2DP562EA	
	50 x 63	9.57	13.40	0.038	0.021		ECEP2DP562HA
6800	40 x 105	8.65	12.11	0.032	0.017	ECET2DP682FA	ECEP2DP682FA
	50 x 80	11.41	15.97	0.032	0.017		ECEP2DP682HA
7500	50 x 92	12.28	17.19	0.029	0.016		ECEP2DP752HA
8200	50 x 92	13.02	18.23	0.026	0.014		ECEP2DP822HX
	50 x 105	13.16	18.42	0.026	0.014		ECEP2DP822HA
10000	50 x 105	14.17	19.84	0.021	0.011		ECEP2DP103HA
<b>250 VDC Working, 300 VDC Surge</b>							
1200	35 x 40	3.32	4.65	0.166	0.083	ECET2EP122EA	
1500	35 x 50	4.04	5.66	0.133	0.066	ECET2EP152EA	
	40 x 40	4.04	5.66	0.133	0.066	ECET2EP152FA	ECEP2EP152FA
1800	35 x 63	4.49	6.29	0.111	0.055	ECET2EP182EA	
	40 x 50	4.49	6.29	0.111	0.055	ECET2EP182FA	ECEP2EP182FA
2200	35 x 63	4.70	6.58	0.090	0.045	ECET2EP222EX	
	35 x 80	4.94	6.92	0.090	0.045	ECET2EP222EA	
	40 x 63	4.94	6.92	0.090	0.045	ECET2EP222FA	ECEP2EP222FA
2700	35 x 80	5.63	7.88	0.074	0.037	ECET2EP272EA	
	40 x 63	5.81	8.13	0.074	0.037	ECET2EP272FX	ECEP2EP272FX
	50 x 50	6.77	9.48	0.074	0.037		ECEP2EP272HA
3300	40 x 80	7.00	9.80	0.060	0.030	ECET2EP332FA	ECEP2EP332FA
	50 x 50	7.22	10.11	0.060	0.060		ECEP2EP332HX
	50 x 63	7.79	10.91	0.060	0.030		ECEP2EP332HA
3900	35 x 105	7.47	10.46	0.051	0.026	ECET2EP392EA	
	40 x 80	7.36	10.30	0.051	0.026	ECET2EP392FA	ECEP2EP392FA
	50 x 63	8.19	11.47	0.051	0.026		ECEP2EP392HA
4700	40 x 105	8.88	12.43	0.042	0.021	ECET2EP472FA	ECEP2EP472FA
	50 x 80	9.65	13.51	0.042	0.021		ECEP2EP472HA
5600	50 x 80	10.42	14.59	0.036	0.018		ECEP2EP562HX
	50 x 92	10.80	15.12	0.036	0.018		ECEP2EP562HA
6800	50 x 105	12.16	17.02	0.029	0.015		ECEP2EP682HA
7500	50 x 105	12.56	17.58	0.026	0.014		ECEP2EP752HA
<b>350 VDC Working, 400 VDC Surge</b>							
470	35 x 40	2.40	3.36	0.388	0.175	ECET2VP471EA	
680	35 x 50	2.96	4.14	0.366	0.165	ECET2VP681EA	
	40 x 40	2.96	4.14	0.366	0.165	ECET2VP681FA	ECEP2VP681FA
1000	35 x 63	3.80	5.32	0.249	0.112	ECET2VP102EA	
	40 x 50	3.80	5.32	0.249	0.112	ECET2VP102FA	ECEP2VP102FA
1200	35 x 80	4.42	6.19	0.207	0.093	ECET2VP122EA	
	40 x 63	4.42	6.19	0.207	0.093	ECET2VP122FA	ECEP2VP122FA
	50 x 50	5.18	7.25	0.207	0.093		ECEP2VP122HA
1500	50 x 63	6.01	8.41	0.166	0.075		ECEP2VP152HA
1800	35 x 105	5.79	8.11	0.138	0.062	ECET2VP182EA	
	40 x 80	5.85	8.19	0.138	0.062	ECET2VP182FA	ECEP2VP182FA
	50 x 80	6.89	9.65	0.138	0.062		ECEP2VP182HA

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## T-UP Standard Ratings (continued)

Part numbers shown with 6.3mm Length Snap-in Terminals

Cap. ( $\mu$ F)	Size (mm) D x L	Max 85°C R.C. ( $A_{rms}$ )		20°C ESR ( $\Omega$ , max.)		Panasonic Part Number	
		120Hz	10kHz~	120Hz	20kHz	4 Pin Style	5 Pin Style
<b>350 VDC Working, 400 VDC Surge (continued)</b>							
2200	40 x 105	6.91	9.67	0.113	0.051	ECET2VP222FA	ECEP2VP222FA
	50 x 92	7.79	10.91	0.113	0.051		ECEP2VP222HA
2700	50 x 105	8.80	12.32	0.092	0.041		ECEP2VP272HA
<b>400 VDC Working, 450 VDC Surge</b>							
470	35 x 45	2.39	3.35	0.388	0.136	ECET2GP471EA	
560	35 x 50	2.72	3.81	0.326	0.114	ECET2GP561EA	
	40 x 40	2.69	3.77	0.326	0.114	ECET2GP561FA	ECEP2GP561FA
680	40 x 50	3.38	4.73	0.268	0.093	ECET2GP681FA	ECEP2GP681FA
820	35 x 63	3.55	4.97	0.222	0.078	ECET2GP821EA	
	40 x 50	3.38	4.73	0.222	0.078	ECET2GP821FA	ECEP2GP821FA
1000	35 x 80	3.42	4.79	0.199	0.080	ECET2GP102EA	
	40 x 63	4.16	5.82	0.199	0.080	ECET2GP102FA	ECEP2GP102FA
	50 x 50	4.76	6.66	0.199	0.080		ECEP2GP102HA
1200	35 x 80	4.52	6.33	0.152	0.053	ECET2GP122EA	
	40 x 63	4.52	6.33	0.152	0.053	ECET2GP122FA	ECEP2GP122FA
	50 x 50	5.21	7.29	0.166	0.066		ECEP2GP122HX
	50 x 63	5.47	7.66	0.166	0.066		ECEP2GP122HA
1500	35 x 105	5.44	7.62	0.122	0.043	ECET2GP152EA	
	40 x 80	5.50	7.70	0.122	0.043	ECET2GP152FA	ECEP2GP152FA
	50 x 63	6.12	8.57	0.133	0.053		ECEP2GP152HX
	50 x 80	6.47	9.06	0.133	0.053		ECEP2GP152HA
1800	40 x 105	6.53	9.14	0.101	0.035	ECET2GP182FA	ECEP2GP182FA
	50 x 80	7.09	9.93	0.111	0.044		ECEP2GP182HX
	50 x 92	7.35	10.29	0.111	0.044		ECEP2GP182HA
2200	50 x 92	8.13	11.38	0.090	0.036		ECEP2GP222HX
	50 x 105	8.43	11.80	0.090	0.036		ECEP2GP222HA
2700	50 x 105	9.34	13.08	0.073	0.025		ECEP2GP272HA
<b>450 VDC Working, 500 VDC Surge</b>							
330	35 x 40	2.01	2.81	0.553	0.249	ECET2WP331EA	
470	35 x 50	2.53	3.54	0.423	0.233	ECET2WP471EA	
	40 x 40	2.53	3.54	0.423	0.233	ECET2WP471FA	ECEP2WP471FA
560	35 x 63	2.90	4.06	0.355	0.195	ECET2WP561EA	
680	35 x 80	3.17	4.44	0.293	0.161	ECET2WP681EA	
	40 x 50	3.15	4.41	0.293	0.161	ECET2WP681FA	ECEP2WP681FA
820	35 x 80	3.78	5.29	0.243	0.133	ECET2WP821EA	
	40 x 63	3.70	5.18	0.243	0.133	ECET2WP821FA	ECEP2WP821FA
	50 x 50	4.31	6.03	0.263	0.145		ECEP2WP821HA
1000	40 x 80	4.21	5.89	0.216	0.119	ECET2WP102FA	ECEP2WP102FA
	50 x 63	4.96	6.94	0.216	0.119		ECEP2WP102HA
1200	35 x 105	4.80	6.72	0.166	0.091	ECET2WP122EA	
	40 x 80	4.84	6.78	0.166	0.091	ECET2WP122FA	ECEP2WP122FA
	50 x 63	5.43	7.60	0.180	0.099		ECEP2WP122HX
	50 x 80	5.71	7.99	0.180	0.099		ECEP2WP122HA
1500	40 x 105	5.81	8.13	0.133	0.073	ECET2WP152FA	ECEP2WP152FA
	50 x 80	6.15	8.61	0.144	0.079		ECEP2WP152HX
	50 x 92	6.55	9.17	0.144	0.079		ECEP2WP152HA
1800	50 x 92	7.02	9.83	0.120	0.066		ECEP2WP182HX
	50 x 105	7.36	10.30	0.120	0.066		ECEP2WP182HA
<b>500 VDC Working, 550 VDC Surge</b>							
270	35 x 40	1.76	2.46	0.614	0.276	ECET2HP271EA	
330	40 x 40	2.16	3.02	0.502	0.276	ECET2HP331FA	ECEP2HP331FA
390	35 x 50	2.22	3.11	0.425	0.234	ECET2HP391EA	
470	35 x 63	2.58	3.61	0.353	0.194	ECET2HP471EA	
	40 x 50	2.70	3.78	0.353	0.194	ECET2HP471FA	ECEP2HP471FA
560	40 x 63	3.11	4.35	0.326	0.179	ECET2HP561FA	ECEP2HP561FA
	50 x 50	3.52	4.93	0.355	0.195		ECEP2HP561HA
680	35 x 80	3.21	4.49	0.244	0.134	ECET2HP681EA	
	50 x 50	3.88	5.43	0.293	0.161		ECEP2HP681HX
	50 x 63	4.07	5.70	0.293	0.161		ECEP2HP681HA
820	35 x 105	3.97	5.56	0.202	0.111	ECET2HP821EA	
	40 x 80	3.88	5.43	0.222	0.122	ECET2HP821FA	ECEP2HP821FA
	50 x 63	4.47	6.26	0.222	0.122		ECEP2HP821HA
1000	50 x 80	5.05	7.07	0.199	0.109		ECEP2HP102HA

Design and specifications are subject to change without notice.

Contact the factory or your sales representative for technical specifications before purchase and/or use.

When safety concerns arise, please contact Panasonic immediately for technical consultation.

**T-UP Standard Ratings (continued)**

Part numbers shown with 6.3mm Length Snap-in Terminals

Cap. ( $\mu$ F)	Size (mm) D x L	Max 85°C R.C. ( $A_{rms}$ )		20°C ESR ( $\Omega$ , max.)		Panasonic Part Number	
		120Hz	10kHz~	120Hz	20kHz	4 Pin Style	5 Pin Style
<b>500 VDC Working, 550 VDC Surge (continued)</b>							
1200	40 x 105	5.90	8.26	0.152	0.084	<b>ECET2HP122FA</b>	<b>ECEP2HP122FA</b>
	50 x 80	5.35	7.49	0.166	0.091		<b>ECEP2HP122HX</b>
	50 x 92	5.74	8.04	0.166	0.091		<b>ECEP2HP122HA</b>
1500	50 x 105	6.65	9.31	0.144	0.079		<b>ECEP2HP152HA</b>