

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



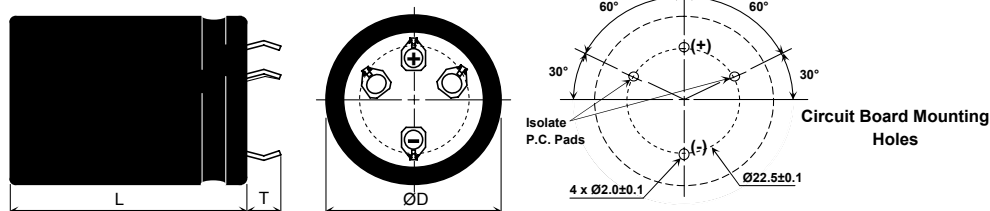
Rated Working Voltage:	16 ~ 250 VDC						350 ~ 450 VDC					
Operating Temperature:	-40 ~ +85°C						-25 ~ +85°C					
Nominal Capacitance:	1200~180000μF						330~2200μF					
Capacitance Tolerance:	± 20%											
Dissipation Factor: (120 Hz, +20°C)	Working Voltage [V]:	16	25	35	50	63	80	100	160 ~ 450			
	Max. D.F. (%):	50	40	35	30	25	20	20	15			
	For capacitance values > 33000μF, add the value of: (rated cap. [μF] - 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.

Diagram illustrating the marking scheme for the ECET 100W 1% 6.3mm Snap-in Resistor:

- Terminals:** ECET (Prefix), No. of Pins (4)
- Series Code:** P
- Capacitance Code:** 100
- Diameter Code:** 35 (Dia.), E (Code)
- Terminal Suffix Code:** 6.3mm Snap-in (Standard), A (Standard Ratings), X (Extended Ratings)
- Voltage Code:** 1C, 1E, 1V, 1H, 1J, 1K, 2A, 2C, 2D, 2E, 2V, 2G, 2W (Values: 16, 25, 35, 50, 63, 80, 100, 160, 200, 250, 350, 400, 450)
- RoHS compliant PVC sleeve and top plate is standard.**

4 Pin Mounting Style



**T = 6.3mm Length Snap-in Terminal
Standard on 4 Pin Products**

T-UP Standard Ratings

Part numbers shown with 6.3mm Length Snap-in Terminals

Cap. (μ F)	Size (mm) D x L	Max 85°C R.C. (A_{rms})		20°C ESR (Ω , max.)		Panasonic Part Number 4 Pin Style
		120Hz	10kHz~	120Hz	20kHz	
16 VDC Working, 20 VDC Surge						
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
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
	35 x 80	11.00	12.65	0.015	0.014	ECET1CP104EA
100000	40 x 63	11.36	13.06	0.018	0.017	ECET1CP104FA
	35 x 105	12.81	14.73	0.014	0.013	ECET1CP124EA
120000	40 x 80	12.42	14.28	0.017	0.016	ECET1CP124FA
	180000	40 x 105	14.85	17.08	0.013	0.012
25 VDC Working, 32 VDC Surge						
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
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
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
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
150000	40 x 105	14.07	16.18	0.011	0.010	ECET1EP154FA
35 VDC Working, 44 VDC Surge						
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
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
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
56000	40 x 80	10.30	11.85	0.015	0.012	ECET1VP563FA
68000	35 x 105	10.62	12.21	0.010	0.008	ECET1VP683EA
82000	40 x 105	12.02	13.82	0.012	0.009	ECET1VP823FA
50 VDC Working, 63 VDC Surge						
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
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
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
39000	40 x 80	10.12	11.64	0.015	0.012	ECET1HP393FA
47000	35 x 105	10.27	11.81	0.014	0.011	ECET1HP473EA
56000	40 x 105	11.47	13.19	0.012	0.009	ECET1HP563FA
63 VDC Working, 79 VDC Surge						
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
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
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
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
33000	40 x 105	11.76	13.52	0.015	0.012	ECET1JP333FA

T-UP Standard Ratings (continued)

Part numbers shown with 6.3mm Length Snap-in Terminals

Cap. (μF)	Size (mm) D x L	Max 85°C R.C. (A _{rms})		20°C ESR (Ω, max.)		Panasonic Part Number 4 Pin Style
		120Hz	10kHz~	120Hz	20kHz	
80 VDC Working, 100 VDC Surge						
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
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
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
15000	40 x 80	8.93	10.27	0.024	0.018	ECET1KP153FA
22000	35 x 105	9.86	11.34	0.015	0.011	ECET1KP223EA
27000	40 x 105	11.35	13.05	0.015	0.012	ECET1KP273FA
100 VDC Working, 125 VDC Surge						
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
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
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
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
15000	40 x 105	10.12	11.64	0.022	0.017	ECET2AP153FA
160 VDC Working, 200 VDC Surge						
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
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
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
5600	40 x 80	8.32	11.65	0.038	0.021	ECET2CP562FA
6800	35 x 105	9.05	12.67	0.032	0.017	ECET2CP682EA
10000	40 x 105	9.86	13.80	0.022	0.012	ECET2CP103FA
200 VDC Working, 250 VDC Surge						
1800	35 x 40	4.32	6.05	0.120	0.060	ECET2DP182EX
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
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
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
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
4700	40 x 80	8.38	11.73	0.046	0.025	ECET2DP472FA
5600	35 x 105	8.90	12.46	0.038	0.021	ECET2DP562EA
6800	40 x 105	8.65	12.11	0.032	0.017	ECET2DP682FA
250 VDC Working, 300 VDC Surge						
1200	35 x 40	3.32	4.65	0.166	0.083	ECET2EP122EX
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
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
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
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
3300	40 x 80	7.00	9.80	0.060	0.030	ECET2EP332FA
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
4700	40 x 105	8.88	12.43	0.042	0.021	ECET2EP472FA

T-UP Standard Ratings (continued)

Part numbers shown with 6.3mm Length Snap-in Terminals

Cap. (μF)		Size (mm) D x L	Max 85°C R.C. (A _{rms})		20°C ESR (Ω, max.)		Panasonic Part Number	
			120Hz	10kHz~	120Hz	20kHz	4 Pin Style	
350 VDC Working, 400 VDC Surge								
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		
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		
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		
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		
2200	40 x 105	6.91	9.67	0.113	0.051	ECET2VP222FA		
400 VDC Working, 450 VDC Surge								
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		
680	40 x 50	3.38	4.73	0.268	0.093	ECET2GP681FA		
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		
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		
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		
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		
1800	40 x 105	6.53	9.14	0.101	0.035	ECET2GP182FA		
450 VDC Working, 500 VDC Surge								
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		
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		
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		
1000	40 x 80	4.21	5.89	0.216	0.119	ECET2WP102FA		
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		
1500	40 x 105	5.81	8.13	0.133	0.073	ECET2WP152FA		