

## TS-HC Series two terminal snap-in

- **NEW PRODUCT**
- Highly miniaturized version (30% smaller than HB series)
- 2000 hour life at 105°C
- Can vent construction



Rated Working Voltage:	160 ~ 250 VDC	350 ~ 450 VDC
Operating Temperature:	-40 ~ +105°C	-25 ~ +105°C
Nominal Capacitance:	270~3300 µF	100 ~ 820µF
Capacitance Tolerance:	± 20%	
Dissipation Factor:	15% maximum (120Hz, +20°C)	
Endurance:	2000 hours at +105°C with maximum specified ripple current (see page 4)	

### Part Number System

**E E T**  
Common Code/  
Terminal Type

**H C**  
Series  
Code

**□ □**  
Voltage  
Code

**□ □ □**  
Capacitance  
Code

**□ □**  
Case Dia. /  
Terminal

Top Vinyl Plate

Ripple Current  
Multipliers:  
Page 7

Case Dia.	Terminal Length	
	6.3mm	4.0mm
22mm	B	H
25mm	C	J
30mm	D	K
35mm	E	L

A	With plate
	Without plate

### TS-HC Standard Ratings (part numbers shown with standard length terminal and top vinyl plate)

Cap. (µF)	Size (mm) D x L	Max 105°C R.C. (A <sub>rms</sub> )		20°C ESR (Ω, max.)		Panasonic Part Number	Cap. (µF)	Size (mm) D x L	Max 105°C R.C. (A <sub>rms</sub> )		20°C ESR (Ω, max.)		Panasonic Part Number
		120Hz	10k~100kHz	120Hz	20kHz				120Hz	10k~100kHz	120Hz	20kHz	
<b>160 VDC Working, 200 VDC Surge</b>							<b>200 VDC Working, 250 VDC Surge</b>						
470	22 x 25	1.40	1.96	0.423	0.190	EETHC2C471BA	390	22 x 25	1.31	1.83	0.510	0.230	EETHC2D391BA
560	22 x 30	1.50	2.10	0.355	0.160	EETHC2C561BA	470	22 x 30	1.45	2.03	0.423	0.190	EETHC2D471BA
680	22 x 30	1.70	2.38	0.293	0.132	EETHC2C681BA	560	22 x 30	1.67	2.34	0.355	0.160	EETHC2D561BA
820	22 x 35	2.00	2.80	0.243	0.109	EETHC2C821BA	680	22 x 40	1.75	2.45	0.293	0.132	EETHC2D681BA
1000	22 x 40	2.20	3.08	0.199	0.090	EETHC2C102BA	820	22 x 45	2.04	2.86	0.243	0.109	EETHC2D821BA
1200	22 x 45	2.30	3.22	0.166	0.075	EETHC2C122BA	1000	22 x 50	2.30	3.22	0.199	0.090	EETHC2D102BA
680	25 x 25	1.70	2.38	0.293	0.132	EETHC2C681CA	680	25 x 30	1.75	2.45	0.293	0.132	EETHC2D681CA
820	25 x 30	2.00	2.80	0.243	0.109	EETHC2C821CA	820	25 x 35	2.04	2.86	0.243	0.109	EETHC2D821CA
1000	25 x 35	2.20	3.08	0.199	0.090	EETHC2C102CA	1000	25 x 45	2.30	3.22	0.199	0.090	EETHC2D102CA
1200	25 x 40	2.30	3.22	0.166	0.075	EETHC2C122CA	1200	25 x 50	2.65	3.71	0.166	0.075	EETHC2D122CA
1500	25 x 45	2.50	3.50	0.133	0.060	EETHC2C152CA	820	30 x 25	2.04	2.86	0.243	0.109	EETHC2D821DA
1800	25 x 50	2.70	3.78	0.111	0.050	EETHC2C182CA	1000	30 x 30	2.30	3.22	0.199	0.090	EETHC2D102DA
1000	30 x 25	2.20	3.08	0.216	0.108	EETHC2C102DA	1200	30 x 35	2.65	3.71	0.166	0.075	EETHC2D122DA
1200	30 x 30	2.30	3.22	0.166	0.075	EETHC2C122DA	1500	30 x 40	2.80	3.92	0.133	0.060	EETHC2D152DA
1500	30 x 35	2.50	3.50	0.133	0.060	EETHC2C152DA	1800	30 x 45	3.08	4.31	0.111	0.050	EETHC2D182DA
1800	30 x 40	2.70	3.78	0.111	0.050	EETHC2C182DA	2200	30 x 50	3.48	4.87	0.090	0.041	EETHC2D222DA
2200	30 x 45	2.90	4.06	0.090	0.041	EETHC2C222DA	1000	35 x 25	2.30	3.22	0.216	0.097	EETHC2D102EA
2700	30 x 50	3.10	4.34	0.080	0.040	EETHC2C272DA	1200	35 x 30	2.65	3.71	0.180	0.090	EETHC2D122EA
1200	35 x 25	2.30	3.22	0.180	0.090	EETHC2C122EA	1500	35 x 30	2.80	3.92	0.144	0.072	EETHC2D152EA
1500	35 x 30	2.50	3.50	0.155	0.077	EETHC2C152EA	1800	35 x 40	3.08	4.31	0.129	0.064	EETHC2D182EA
1800	35 x 30	2.70	3.78	0.120	0.060	EETHC2C182EA	2200	35 x 45	3.48	4.87	0.098	0.044	EETHC2D222EA
2200	35 x 35	2.90	4.06	0.098	0.049	EETHC2C222EA							
2700	35 x 40	3.10	4.34	0.086	0.043	EETHC2C272EA							
3300	35 x 50	3.30	4.62	0.070	0.042	EETHC2C332EA							

### TS-HC Standard Ratings (continued)

Cap. ( $\mu$ F)	Size (mm) D x L	Max 105°C R.C. ( $A_{rms}$ )		20°C ESR ( $\Omega$ , max.)		Panasonic Part Number	Cap. ( $\mu$ F)	Size (mm) D x L	Max 105°C R.C. ( $A_{rms}$ )		20°C ESR ( $\Omega$ , max.)		Panasonic Part Number
		120Hz	10k~100kHz	120Hz	20kHz				120Hz	10k~100kHz	120Hz	20kHz	
<b>250 VDC Working, 300 VDC Surge</b>							<b>350 VDC Working, 400 VDC Surge</b>						
270	22 x 25	1.10	1.54	0.614	0.276	EETHC2E271BA	120	22 x 25	0.75	1.05	1.382	0.622	EETHC2V121BA
330	22 x 30	1.20	1.68	0.502	0.226	EETHC2E331BA	150	22 x 30	0.82	1.15	1.105	0.497	EETHC2V151BA
390	22 x 35	1.30	1.82	0.425	0.191	EETHC2E391BA	180	22 x 30	0.90	1.26	0.921	0.414	EETHC2V181BA
470	22 x 40	1.40	1.96	0.353	0.159	EETHC2E471BA	220	22 x 35	1.00	1.40	0.754	0.339	EETHC2V221BA
560	22 x 45	1.50	2.10	0.296	0.133	EETHC2E561BA	180	25 x 25	0.90	1.26	0.921	0.414	EETHC2V181CA
680	22 x 50	1.70	2.38	0.244	0.110	EETHC2E681BA	220	25 x 30	1.00	1.40	0.754	0.339	EETHC2V221CA
330	25 x 25	1.20	1.68	0.502	0.226	EETHC2E331CA	270	25 x 35	1.10	1.54	0.614	0.276	EETHC2V271CA
390	25 x 25	1.30	1.82	0.425	0.191	EETHC2E391CA	330	25 x 40	1.20	1.68	0.502	0.226	EETHC2V331CA
470	25 x 30	1.40	1.96	0.353	0.159	EETHC2E471CA	390	25 x 45	1.30	1.82	0.425	0.191	EETHC2V391CA
560	25 x 35	1.50	2.10	0.296	0.133	EETHC2E561CA	470	25 x 50	1.40	1.96	0.353	0.159	EETHC2V471CA
680	25 x 40	1.70	2.38	0.244	0.110	EETHC2E681CA	270	30 x 25	1.10	1.54	0.614	0.276	EETHC2V271DA
820	25 x 45	2.00	2.80	0.202	0.091	EETHC2E821CA	330	30 x 30	1.20	1.68	0.502	0.226	EETHC2V331DA
470	30 x 25	1.40	1.96	0.353	0.159	EETHC2E471DA	390	30 x 35	1.30	1.82	0.425	0.191	EETHC2V391DA
560	30 x 25	1.50	2.10	0.296	0.133	EETHC2E561DA	560	30 x 45	1.50	2.10	0.296	0.133	EETHC2V561DA
680	30 x 30	1.70	2.38	0.244	0.110	EETHC2E681DA	680	30 x 50	1.70	2.38	0.244	0.110	EETHC2V681DA
820	30 x 35	2.00	2.80	0.202	0.091	EETHC2E821DA	470	35 x 30	1.40	1.96	0.353	0.159	EETHC2V471EA
1000	30 x 40	2.20	3.08	0.166	0.075	EETHC2E102DA	560	35 x 35	1.50	2.10	0.296	0.133	EETHC2V561EA
1200	30 x 45	2.30	3.22	0.138	0.062	EETHC2E122DA	680	35 x 40	1.70	2.38	0.244	0.110	EETHC2V681EA
680	35 x 25	1.70	2.38	0.244	0.110	EETHC2E681EA	820	35 x 45	1.90	2.66	0.202	0.091	EETHC2V821EA
820	35 x 30	2.00	2.80	0.202	0.091	EETHC2E821EA							
1500	35 x 45	2.50	3.50	0.111	0.050	EETHC2E152EA							
1800	35 x 50	2.70	3.78	0.092	0.041	EETHC2E182EA							

Cap. ( $\mu$ F)	Size (mm) D x L	Max 105°C R.C. ( $A_{rms}$ )		20°C ESR ( $\Omega$ , max.)		Panasonic Part Number	Cap. ( $\mu$ F)	Size (mm) D x L	Max 105°C R.C. ( $A_{rms}$ )		20°C ESR ( $\Omega$ , max.)		Panasonic Part Number
		120Hz	10k~100kHz	120Hz	20kHz				120Hz	10k~100kHz	120Hz	20kHz	
<b>400 VDC Working, 450 VDC Surge</b>							<b>450 VDC Working, 500 VDC Surge</b>						
100	22 x 25	0.70	0.98	1.824	0.821	EETHC2G101BA	100	22 x 30	0.64	0.90	1.824	0.821	EETHC2W101BA
120	22 x 30	0.75	1.05	1.520	0.684	EETHC2G121BA	120	22 x 35	0.72	1.01	1.520	0.684	EETHC2W121BA
150	22 x 30	0.88	1.23	1.216	0.547	EETHC2G151BA	150	22 x 40	0.79	1.11	1.216	0.547	EETHC2W151BA
180	22 x 35	0.95	1.33	1.013	0.456	EETHC2G181BA	180	22 x 45	0.87	1.22	1.013	0.456	EETHC2W181BA
220	22 x 45	1.10	1.54	0.829	0.373	EETHC2G221BA	100	25 x 25	0.64	0.90	1.824	0.821	EETHC2W101CA
270	22 x 50	1.22	1.71	0.675	0.304	EETHC2G271BA	120	25 x 30	0.72	1.01	1.520	0.684	EETHC2W121CA
180	25 x 30	0.95	1.33	1.013	0.456	EETHC2G181CA	150	25 x 30	0.79	1.11	1.216	0.547	EETHC2W151CA
220	25 x 35	1.10	1.54	0.829	0.373	EETHC2G221CA	180	25 x 40	0.87	1.22	1.013	0.456	EETHC2W181CA
270	25 x 40	1.22	1.71	0.675	0.304	EETHC2G271CA	220	25 x 45	1.00	1.40	0.829	0.373	EETHC2W221CA
330	25 x 45	1.44	2.02	0.553	0.249	EETHC2G331CA	270	25 x 50	1.19	1.67	0.675	0.304	EETHC2W271CA
390	25 x 50	1.55	2.17	0.468	0.210	EETHC2G391CA	150	30 x 25	0.79	1.11	1.216	0.547	EETHC2W151DA
220	30 x 25	1.10	1.54	0.829	0.373	EETHC2G221DA	180	30 x 30	0.87	1.22	1.013	0.456	EETHC2W181DA
270	30 x 30	1.22	1.71	0.675	0.304	EETHC2G271DA	220	30 x 30	1.00	1.40	0.829	0.373	EETHC2W221DA
330	30 x 35	1.44	2.02	0.553	0.249	EETHC2G331DA	270	30 x 40	1.19	1.67	0.675	0.304	EETHC2W271DA
390	30 x 40	1.55	2.17	0.468	0.210	EETHC2G391DA	330	30 x 45	1.38	1.93	0.553	0.249	EETHC2W331DA
470	30 x 45	1.68	2.35	0.388	0.175	EETHC2G471DA	390	30 x 50	1.55	2.17	0.468	0.210	EETHC2W391DA
560	30 x 50	1.90	2.66	0.326	0.147	EETHC2G561DA	220	35 x 25	1.00	1.40	0.829	0.373	EETHC2W221EA
270	35 x 25	1.22	1.71	0.675	0.304	EETHC2G271EA	270	35 x 30	1.19	1.67	0.675	0.304	EETHC2W271EA
330	35 x 30	1.44	2.02	0.553	0.249	EETHC2G331EA	330	35 x 35	1.38	1.93	0.553	0.249	EETHC2W331EA
390	35 x 30	1.55	2.17	0.468	0.210	EETHC2G391EA	390	35 x 40	1.55	2.17	0.468	0.210	EETHC2W391EA
470	35 x 35	1.68	2.35	0.388	0.175	EETHC2G471EA	470	35 x 45	1.74	2.44	0.388	0.175	EETHC2W471EA
560	35 x 40	1.90	2.66	0.326	0.147	EETHC2G561EA	560	35 x 50	1.90	2.66	0.326	0.147	EETHC2W561EA
680	35 x 45	2.12	2.97	0.268	0.121	EETHC2G681EA							