

TTH - SMTTH Series

2.7 μ F to 1500 μ F
125V to 6V
-55°C to 200°C

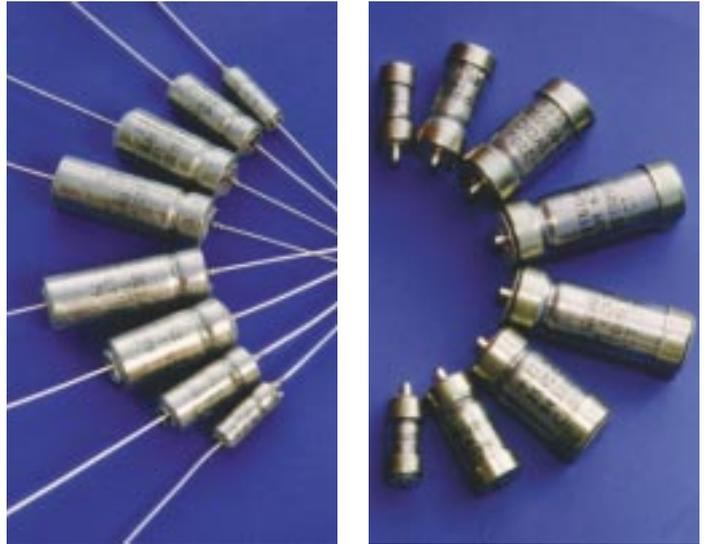
The TTH & SMTTH series are intended for high temperature operation to a maximum of 200°C with corresponding derating above 85°C. The tantalum case design allows a reverse voltage and high ripple current capability. These series will handle up to 3 volts in reverse at 85°C and 1 volt at 200°C.

The range is of constructional compatibility with the well proven TH & SMTH range of all-tantalum tubular non-solid electrolytic capacitors, encompassing many of the values within the TH range approved to CECC 30 202 001 and CECC 30 202 005.

In general the characteristics of the units are the same as the equivalent TH unit, (see Data Sheet 5007). It should be noted that only values appearing in this brochure should be subjected to a maximum of 200°C, and those appearing in the TH & SMTH must not exceed 125°C

without prior consultation with Arcotronics' Applications Department.

Leakage currents at the elevated temperatures with the appropriate voltage derating applied are three times the corresponding values at rated voltage and 85°C.



CA -CAE Series

47 μ F to 1800 μ F
125V to 6.3V
-55°C to 200°C

The CAPC & CAEPC series is a conveniently packaged polar button unit suitable for a maximum of 200°C with corresponding derating.

The anode is produced from a high capacitance powder resulting in a capacitor of small size with a large CV product. The cathode is also of tantalum and provides an all-tantalum construction with up to 3 volts in reverse at 85°C and 1 volt at 200°C.

The seal is a highly efficient system, comprising a PTFE gasket clamped between coined plates of tantalum by a work-hardened nickel ring. This type of seal is largely responsible for their long life and high reliability under severe military environments.

The CAPC & CAEPC series are CECC 30 202 002 approved for use up to 125°C.

In general the characteristics of the units are the same as Data Sheet 5001.



Leakage currents at the elevated temperatures with the appropriate voltage derating applied are three times the corresponding values at rated voltage and 85°C.

The CAX range is similar in construction to the CA & CAE, with an additional set of mounting pins around the periphery of the circular rim for providing additional stability under high mechanical shock and vibration loads.

Selection Chart

Preferred Range

Rated Voltage @ 85°C	6.3	10	16	25	40	63	75	100	125
Category Voltage @ 125°C	4	6.3	10	16	25	40	50	63	85
Rated (µF) Capacitance	Case Sizes								
2.7									T1
3.3									T1
3.9									T1
4.7								T1	
5.6								T1	T1
6.8							T1		
8.2							T1		
10.0						T1			
12.0						T1			
15.0					T1	T1			T2
18.0									T2
22.0				T1			T1	T2	
27.0				T1		T1		T2	
33.0			T1				T2	T2/T3	
39.0					T1			T2/T3	T3
47.0		T1				T2	T2	T3	T3
56.0						T2		T3	
68.0	T1			T1	T2		T2/T3	T4/T3	T4
82.0						T2	T2/T3	T4	T4
100				T2		T3	T3		
120		T1	T2			T3	T4	T4	
150		T2			T3	T4	T3/T4		
180		T2		T2			T3		
220	T2			T3	T4		T4	T4	
270					T3	T4			
330			T3	T4		T4			
390				T4/T3	T4				
470	T2	T3	T4	T3					
560	T3		T4						
680		T4		T4					
820		T4							
1000	T4	T3	T4						
1200									
1500		T4							

Table 1. Preferred Range						TTH Series		SMTTH Series					
Capacitance (µF)	Rated Voltage 85°C	Category Voltage 125°C	Case Size	Arcotronics Part Number Cap Tol ±10% 402/1/-	Cap Tol ±20% 402/1/-	Capacitance (µF)	Rated Voltage 85°C	Category Voltage 125°C	Case Size	Arcotronics Part Number Cap Tol ±10% 402/1/-	Cap Tol ±20% 402/1/-		
68	6.3	4	T1	67611/117	67611/017	68	6.3	4	T1	87611/117	87611/017		
220	6.3	4	T2	67621/123	67621/023	220	6.3	4	T2	87621/123	87621/023		
470	6.3	4	T2	67621/127	67621/027	470	6.3	4	T2	87621/127	87621/027		
560	6.3	4	T3	67631/128	67631/028	560	6.3	4	T3	87631/128	87631/028		
1000	6.3	4	T4	67641/131	67641/031	1000	6.3	4	T4	87641/131	87641/031		
47	10	6.3	T1	67612/115	67612/015	47	10	6.3	T1	87612/115	87612/015		
120	10	6.3	T1	67612/120	67612/020	120	10	6.3	T1	87612/120	87612/020		
150	10	6.3	T2	67622/121	67622/021	150	10	6.3	T2	87622/121	87622/021		
180	10	6.3	T2	67622/122	67622/022	180	10	6.3	T2	87622/122	87622/022		
470	10	6.3	T3	67632/127	67632/027	470	10	6.3	T3	87632/127	87632/027		
680	10	6.3	T4	67642/129	67642/029	680	10	6.3	T4	87642/129	87642/029		
820	10	6.3	T4	67642/130	67642/030	820	10	6.3	T4	87642/130	87642/030		
1000	10	6.3	T3	67632/131	67632/031	1000	10	6.3	T3	87632/131	87632/031		
1500	10	6.3	T4	67642/133	67642/033	1500	10	6.3	T4	87642/133	87642/033		
33	16	10	T1	67613/113	67613/013	33	16	10	T1	87613/113	87613/013		
120	16	10	T2	67623/120	67623/020	120	16	10	T2	87623/120	87623/020		
330	16	10	T3	67633/125	67633/025	330	16	10	T3	87633/125	87633/025		
470	16	10	T4	67643/127	67643/027	470	16	10	T4	87643/127	87643/027		
560	16	10	T4	67643/128	67643/028	560	16	10	T4	87643/128	87643/028		
1000	16	10	T4	67643/131	67643/031	1000	16	10	T4	87643/131	87643/031		
22	25	16	T1	67614/111	67614/011	22	25	16	T1	87614/111	87614/011		
27	25	16	T1	67614/112	67614/012	27	25	16	T1	87614/112	87614/012		
68	25	16	T1	67614/117	67614/017	68	25	16	T1	87614/117	87614/017		
100	25	16	T2	67624/119	67624/019	100	25	16	T2	87624/119	87624/019		
180	25	16	T2	67624/122	67624/022	180	25	16	T2	87624/122	87624/022		
220	25	16	T3	67634/123	67634/023	220	25	16	T3	87634/123	87634/023		
330	25	16	T4	67644/125	67644/025	330	25	16	T4	87644/125	87644/025		
390	25	16	T3	67634/126	67634/026	390	25	16	T3	87634/126	87634/026		
390	25	16	T4	67644/126	67644/026	390	25	16	T4	87644/126	87644/026		
470	25	16	T3	67634/127	67634/027	470	25	16	T3	87634/127	87634/027		
680	25	16	T4	67644/129	67644/029	680	25	16	T4	87644/129	87644/029		
15	40	25	T1	67615/109	67615/009	15	40	25	T1	87615/109	87615/009		
39	40	25	T1	67615/114	67615/014	39	40	25	T1	87615/114	87615/014		
68	40	25	T2	67625/117	67625/017	68	40	25	T2	87625/117	87625/017		
150	40	25	T3	67635/121	67635/021	150	40	25	T3	87635/121	87635/021		
220	40	25	T4	67645/123	67645/023	220	40	25	T4	87645/123	87645/023		
270	40	25	T3	67635/124	67635/024	270	40	25	T3	87635/124	87635/024		
390	40	25	T4	67645/126	67645/026	390	40	25	T4	87645/126	87645/026		
10	63	40	T1	67616/107	67616/007	10	63	40	T1	87616/107	87616/007		
12	63	40	T1	67616/108	67616/008	12	63	40	T1	87616/108	87616/008		
15	63	40	T1	67616/109	67616/009	15	63	40	T1	87616/109	87616/009		
27	63	40	T1	67616/112	67616/012	27	63	40	T1	87616/112	87616/012		
47	63	40	T2	67626/115	67626/015	47	63	40	T2	87626/115	87626/015		
56	63	40	T2	67626/116	67626/016	56	63	40	T2	87626/116	87626/016		
82	63	40	T2	67626/118	67626/018	82	63	40	T2	87626/118	87626/018		
100	63	40	T3	67636/119	67636/019	100	63	40	T3	87636/119	87636/019		
120	63	40	T3	67636/120	67636/020	120	63	40	T3	87636/120	87636/020		
150	63	40	T4	67646/121	67646/021	150	63	40	T4	87646/121	87646/021		
270	63	40	T4	67646/124	67646/024	270	63	40	T4	87646/124	87646/024		
330	63	40	T4	67646/125	67646/025	330	63	40	T4	87646/125	87646/025		
6.8	75	50	T1	67617/105	67617/005	6.8	75	50	T1	87617/105	87617/005		
8.2	75	50	T1	67617/106	67617/006	8.2	75	50	T1	87617/106	87617/006		
22	75	50	T1	67617/111	67617/011	22	75	50	T1	87617/111	87617/011		
33	75	50	T2	67627/113	67627/013	33	75	50	T2	87627/113	87627/013		
47	75	50	T2	67627/115	67627/015	47	75	50	T2	87627/115	87627/015		
68	75	50	T2	67627/117	67627/017	68	75	50	T2	87627/117	87627/017		
68	75	50	T3	67637/117	67637/017	68	75	50	T3	87637/117	87637/017		
82	75	50	T2	67627/118	67627/018	82	75	50	T2	87627/118	87627/018		
82	75	50	T3	67637/118	67637/018	82	75	50	T3	87637/118	87637/018		
100	75	50	T3	67637/119	67637/019	100	75	50	T3	87637/119	87637/019		
120	75	50	T4	67647/120	67647/020	120	75	50	T4	87647/120	87647/020		
150	75	50	T3	67637/121	67637/021	150	75	50	T3	87637/121	87637/021		
150	75	50	T4	67647/121	67647/021	150	75	50	T4	87647/121	87647/021		
180	75	50	T3	67637/122	67637/022	180	75	50	T3	87637/122	87637/022		
220	75	50	T4	67647/123	67647/023	220	75	50	T4	87647/123	87647/023		
4.7	100	63	T1	67618/103	67618/003	4.7	100	63	T1	87618/103	87618/003		
5.6	100	63	T1	67618/104	67618/004	5.6	100	63	T1	87618/104	87618/004		
22	100	63	T2	67628/111	67628/011	22	100	63	T2	87628/111	87628/011		
33	100	63	T2	67628/113	67628/013	33	100	63	T2	87628/113	87628/013		
33	100	63	T3	67638/113	67638/013	33	100	63	T3	87638/113	87638/013		
39	100	63	T2	67628/114	67628/014	39	100	63	T2	87628/114	87628/014		
39	100	63	T3	67638/114	67638/014	39	100	63	T3	87638/114	87638/014		
47	100	63	T3	67638/115	67638/015	47	100	63	T3	87638/115	87638/015		
56	100	63	T3	67638/116	67638/016	56	100	63	T3	87638/116	87638/016		
68	100	63	T3	67638/117	67638/017	68	100	63	T3	87638/117	87638/017		
68	100	63	T4	67648/117	67648/017	68	100	63	T4	87648/117	87648/017		
82	100	63	T4	67648/118	67648/018	82	100	63	T4	87648/118	87648/018		
120	100	63	T4	67648/120	67648/020	120	100	63	T4	87648/120	87648/020		
220	100	63	T4	67648/123	67648/023	220	100	63	T4	87648/123	87648/023		
2.7	125	85	T1	67619/199	67619/099	2.7	125	85	T1	87619/199	87619/099		
3.3	125	85	T1	67619/101	67619/001	3.3	125	85	T1	87619/101	87619/001		
3.9	125	85	T1	67619/102	67619/002	3.9	125	85	T1	87619/102	87619/002		
5.6	125	85	T1	67619/104	67619/004	5.6	125	85	T1	87619/104	87619/004		
15	125	85	T2	67629/109	67629/009	15	125	85	T2	87629/109	87629/009		
18	125	85	T2	67629/110	67629/010	18	125	85	T2	87629/110	87629/010		
27	125	85	T2	67629/112	67629/012	27	125	85	T2	87629/112	87629/012		
39	125	85	T3	67639/114	67639/014	39	125	85	T3	87639/114	87639/014		
47	125	85	T3	67639/115	67639/015	47	125	85	T3	87639/115	87639/015		
68	125	85	T4	67649/117	67649/017	68	125	85	T4	87649/117	87649/017		
82	125	85	T4	67649/118	67649/018	82	125	85	T4	87649/118	87649/018		

Ordering Procedure: For Kapton sleeved components, add a "K" to the last digit of the Part No and for unsleeved components, add a "U".

Selection Chart

Replacement Range MIL-C Values

Rated Voltage @ 85°C	6	8	10	15	25	30	50	60	75	100	125
Category Voltage @ 125°C	4	5	7	10	15	20	30	40	50	65	85
Rated (µF) Capacitance	Case Sizes										
3.5									T1		
3.6											T1
4.0								T1			
5.0							T1				
8.0						T1					
8.2								T1			
9									T1		
10					T1		T1				
14											T2
15				T1		T1			T2	T1	
18											
20			T1					T2			
22											
25		T1						T2			T3
30	T1									T2/T3	
33				T1			T1				
39								T2			
40							T2			T3	
43									T2	T3	
47								T2			
50					T2				T3		
56		T1			T1	T1				T3	T4
60								T3			
68	T1					T2			T3		
70				T2							
82								T3	T2		
86											T4
100			T2			T3	T2				
110								T2	T4/T2		
120		T2		T2	T3		T2				
140	T2								T4		
150						T3/T2					
160							T4				
170				T3							
180					T3						
220		T2				T2					
250			T3								
270	T2			T2/T3	T2			T3	T4		
290		T3									
300			T2				T3/T4				
330	T3						T3		T4		
350					T4	T3		T4			
390			T3	T2							
430		T3									
540				T4							
560	T3						T4				
750			T4								
850		T4	T3	T4							
1200	T4										

Table 2. Replacement Range (MIL-C Values) TTH Series

SMTTH Series

Capacitance (µF)	Rated Voltage 85°C	Category Voltage 125°C	Case Size	Arcotronics Part Number		Capacitance (µF)	Rated Voltage 85°C	Category Voltage 125°C	Case Size	Arcotronics Part Number	
				Cap Tol ±10% 402/1/-	Cap Tol ± 20% 402/1/-					Cap Tol ±10% 402/1/-	Cap Tol ± 20% 402/1/-
30	6	4	T1	68101/120	68101/020	30	6	4	T1	88101/120	88101/020
68	6	4	T1	68101/129	68101/029	68	6	4	T1	88101/129	88101/029
140	6	4	T2	68201/136	68201/036	140	6	4	T2	88201/136	88201/036
270	6	4	T2	68201/143	68201/043	270	6	4	T2	88201/143	88201/043
330	6	4	T3	68301/146	68301/046	330	6	4	T3	88301/146	88301/046
560	6	4	T3	68301/151	68301/051	560	6	4	T3	88301/151	88301/051
1200	6	4	T4	68401/154	68401/054	1200	6	4	T4	88401/154	88401/054
25	8	5	T1	68102/119	68102/019	25	8	5	T1	88102/119	88102/019
56	8	5	T1	68102/127	68102/027	56	8	5	T1	88102/127	88102/027
120	8	5	T2	68202/135	68202/035	120	8	5	T2	88202/135	88202/035
220	8	5	T2	68202/141	68202/041	220	8	5	T2	88202/141	88202/041
290	8	5	T3	68302/144	68302/044	290	8	5	T3	88302/144	88302/044
430	8	5	T3	68302/149	68302/049	430	8	5	T3	88302/149	88302/049
850	8	5	T4	68402/153	68402/053	850	8	5	T4	88402/153	88402/053
20	10	7	T1	68103/117	68103/017	20	10	7	T1	88103/117	88103/017
100	10	7	T2	68203/133	68203/033	100	10	7	T2	88203/133	88203/033
250	10	7	T3	68303/142	68303/042	250	10	7	T3	88303/142	88303/042
300	10	7	T2	68203/145	68203/045	300	10	7	T2	88203/145	88203/045
390	10	7	T3	68303/148	68303/048	390	10	7	T3	88303/148	88303/048
750	10	7	T4	68403/152	68403/052	750	10	7	T4	88403/152	88403/052
850	10	7	T3	68303/153	68303/053	850	10	7	T3	88303/153	88303/053
15	15	10	T1	68104/115	68104/015	15	15	10	T1	88104/115	88104/015
33	15	10	T1	68104/121	68104/021	33	15	10	T1	88104/121	88104/021
70	15	10	T2	68204/130	68204/030	70	15	10	T2	88204/130	88204/030
100	15	10	T1	68104/133	68104/033	100	15	10	T1	88104/133	88104/033
120	15	10	T2	68204/135	68204/035	120	15	10	T2	88204/135	88204/035
170	15	10	T3	68304/139	68304/039	170	15	10	T3	88304/139	88304/039
270	15	10	T2	68204/143	68204/043	270	15	10	T2	88204/143	88204/043
270	15	10	T3	68304/143	68304/043	270	15	10	T3	88304/143	88304/043
390	15	10	T2	68204/148	68204/048	390	15	10	T2	88204/148	88204/048
540	15	10	T4	68404/150	68404/050	540	15	10	T4	88404/150	88404/050
850	15	10	T4	68404/153	68404/053	850	15	10	T4	88404/153	88404/053
10	25	15	T1	68105/112	68105/012	10	25	15	T1	88105/112	88105/012
50	25	15	T2	68205/126	68205/026	50	25	15	T2	88205/126	88205/026
56	25	15	T1	68105/127	68105/027	56	25	15	T1	88105/127	88105/027
120	25	15	T3	68305/135	68305/035	120	25	15	T3	88305/135	88305/035
180	25	15	T3	68305/140	68305/040	180	25	15	T3	88305/140	88305/040
270	25	15	T2	68205/143	68205/043	270	25	15	T2	88205/143	88205/043
350	25	15	T4	68405/147	68405/047	350	25	15	T4	88405/147	88405/047
8	30	20	T1	68106/109	68106/009	8	30	20	T1	88106/109	88106/009
15	30	20	T1	68106/115	68106/015	15	30	20	T1	88106/115	88106/015
40	30	20	T2	68206/123	68206/023	40	30	20	T2	88206/123	88206/023
56	30	20	T1	68106/127	68106/027	56	30	20	T1	88106/127	88106/027
68	30	20	T2	68206/129	68206/029	68	30	20	T2	88206/129	88206/029
100	30	20	T3	68306/133	68306/033	100	30	20	T3	88306/133	88306/033
150	30	20	T2	68206/137	68206/037	150	30	20	T2	88206/137	88206/037
150	30	20	T3	68306/137	68306/037	150	30	20	T3	88306/137	88306/037
220	30	20	T2	68206/141	68206/041	220	30	20	T2	88206/141	88206/041
300	30	20	T3	68306/145	68306/045	300	30	20	T3	88306/145	88306/045
300	30	20	T4	68406/145	68406/045	300	30	20	T4	88406/145	88406/045
330	30	20	T3	68306/146	68306/046	330	30	20	T3	88306/146	88306/046
350	30	20	T3	68306/147	68306/047	350	30	20	T3	88306/147	88306/047
560	30	20	T4	68406/151	68406/051	560	30	20	T4	88406/151	88406/051
5	50	30	T1	68107/107	68107/007	5	50	30	T1	88107/107	88107/007
10	50	30	T1	68107/112	68107/012	10	50	30	T1	88107/112	88107/012
25	50	30	T2	68207/119	68207/019	25	50	30	T2	88207/119	88207/019
33	50	30	T1	68107/121	68107/021	33	50	30	T1	88107/121	88107/021
47	50	30	T2	68207/125	68207/025	47	50	30	T2	88207/125	88207/025
60	50	30	T3	68307/128	68307/028	60	50	30	T3	88307/128	88307/028
82	50	30	T3	68307/131	68307/031	82	50	30	T3	88307/131	88307/031
100	50	30	T2	68207/133	68207/033	100	50	30	T2	88207/133	88207/033
120	50	30	T2	68207/135	68207/035	120	50	30	T2	88207/135	88207/035
160	50	30	T4	68407/138	68407/038	160	50	30	T4	88407/138	88407/038
270	50	30	T3	68307/143	68307/043	270	50	30	T3	88307/143	88307/043
350	50	30	T4	68407/147	68407/047	350	50	30	T4	88407/147	88407/047
4	60	40	T1	68108/105	68108/005	4	60	40	T1	88108/105	88108/005
8.2	60	40	T1	68108/110	68108/010	8.2	60	40	T1	88108/110	88108/010
20	60	40	T2	68208/117	68208/017	20	60	40	T2	88208/117	88208/017
39	60	40	T2	68208/122	68208/022	39	60	40	T2	88208/122	88208/022
50	60	40	T3	68308/126	68308/026	50	60	40	T3	88308/126	88308/026
68	60	40	T3	68308/129	68308/029	68	60	40	T3	88308/129	88308/029
82	60	40	T2	68208/131	68208/031	82	60	40	T2	88208/131	88208/031
110	60	40	T2	68208/134	68208/034	110	60	40	T2	88208/134	88208/034
140	60	40	T4	68408/136	68408/036	140	60	40	T4	88408/136	88408/036
270	60	40	T4	68408/143	68408/043	270	60	40	T4	88408/143	88408/043
330	60	40	T4	68408/146	68408/046	330	60	40	T4	88408/146	88408/046
3.5	75	50	T1	68109/103	68109/003	3.5	75	50	T1	88109/103	88109/003
9	75	50	T1	68109/111	68109/011	9	75	50	T1	88109/111	88109/011
15	75	50	T2	68209/115	68209/015	15	75	50	T2	88209/115	88209/015
40	75	50	T3	68309/123	68309/023	40	75	50	T3	88309/123	88309/023
43	75	50	T2	68209/124	68209/024	43	75	50	T2	88209/124	88209/024
56	75	50	T3	68309/127	68309/027	56	75	50	T3	88309/127	88309/027
110	75	50	T2	68209/134	68209/034	110	75	50	T2	88209/134	88209/034
110	75	50	T4	68409/134	68409/034	110	75	50	T4	88409/134	88409/034
30	100	65	T2	68210/120	68210/020	30	100	65	T2	88210/120	88210/020
30	100	65	T3	68310/120	68310/020	30	100	65	T3	88310/120	88310/020
43	100	65	T3	68310/124	68310/024	43	100	65	T3	88310/124	88310/024
86	100	65	T4	68410/132	68410/032	86	100	65	T4	88410/132	88410/032
3.6	125	85	T1	68111/104	68111/004	3.6	125	85	T1	88111/104	88111/004
14	125	85	T2	68211/114	68211/014	14	125	85	T2	88211/114	88211/014
25	125	85	T3	68311/119	68311/019	25	125	85	T3	88311/119	88311/019
56	125	85	T4	68411/127	68411/027	56	125	85	T4	88411/127	88411/027

Ordering Procedure: For Kapton sleeved components, add a "K" to the last digit of the Part No and for unsleeved components, add a "U".

All Ranges – General Voltage Derating Table

Rated	Working Voltage					Surge Voltage				
	85°C	125°C	150°C	175°C	200°C	85°C	125°C	150°C	175°C	200°C
6	6	4	3	3	3	6.9	4.6	*	*	*
6.3	6.3	4	3	3	3	7.2	4.6	*	*	*
8	8	5	4	4	4	9.2	5.7	*	*	*
10	10	7	6	5	5	11.5	8.0	*	*	*
15	15	10	9	8	7	17.2	11.5	*	*	*
16	16	10	9	8	8	18.5	11.5	*	*	*
25	25	15	15	13	12	28.8	17.2	*	*	*
30	30	20	18	16	15	34.5	23.0	*	*	*
40	40	25	24	22	20	46	29	*	*	*
50	50	30	30	27	25	57.5	34.5	*	*	*
60	60	40	36	33	30	69.0	46.0	*	*	*
63	63	40	36	33	30	72.0	46.0	*	*	*
75	75	50	45	41	37	86.2	57.5	*	*	*
100	100	65	60	55	50	115.0	75.0	*	*	*
125	125	85	75	68	62	144.0	98.0	*	*	*

* 150°C, 175°C & 200°C Derated voltage is peak voltage rating not to be exceeded.

Selection Chart - CA and CAE Series

Capacitance at 50Hz (µF)	Rated Voltage 85°C	Category Voltage 125°C	Arcotronics Part Number CA		Capacitance at 50Hz (µF)	Rated Voltage 85°C	Category Voltage 125°C	Arcotronics Part Number CAE	
			402/1/-	CAPC 402/1/-				402/1/-	CAEPC 402/1/-
47	125	83.3	50157/003	50158/003	82	125	83.3	50157/050	50158/050
56	100	66.7	50157/004	50158/004	100	100	66.7	50157/051	50158/051
68	75	50.0	50157/005	50158/005	120	100	66.7	50157/052	50158/052
82	75	50.0	50157/006	50158/006	150	75	50.0	50157/053	50158/053
100	75	50.0	50157/007	50158/007	180	75	50.0	50157/054	50158/054
120	75	50.0	50157/008	50158/008	220	63	40.0	50157/055	50158/055
150	50	33.3	50157/009	50158/009	270	40	25.0	50157/056	50158/056
180	50	33.3	50157/010	50158/010	330	40	25.0	50157/057	50158/057
220	50	33.3	50157/011	50158/011	390	40	25.0	50157/058	50158/058
270	30	20.0	50157/012	50158/012	470	25	16.0	50157/059	50158/059
330	30	20.0	50157/013	50158/013	560	25	16.0	50157/060	50158/060
390	20	13.4	50157/014	50158/014	680	16	10.0	50157/061	50158/061
470	20	13.4	50157/015	50158/015	820	16	10.0	50157/062	50158/062
560	20	13.4	50157/016	50158/016	1000	10	6.6	50157/063	50158/063
680	15	10.0	50157/017	50158/017	1200	10	6.6	50157/064	50158/064
820	10	6.6	50157/018	50158/018	1500	6.3	4.0	50157/065	50158/065
1000	8	5.3	50157/019	50158/019	1800	6.3	4.0	50157/066	50158/066
1200	6	4.0	50157/020	50158/020					

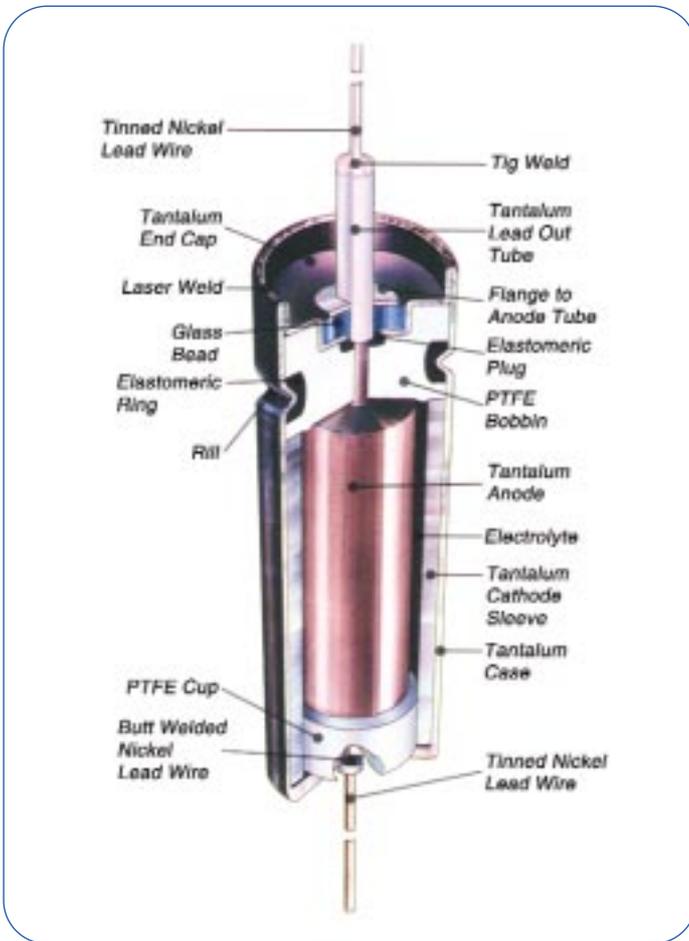
CAX Series

The above component ratings are available with multi pin connections, Generic part number: 402/1/50240/---.
For more information apply to your nearest Arcotronics Sales Office.

Maximum RMS Ripple Currents for CA, CAE and CAX Series

Applied Ripple Current		Operating Temperature				
Frequency	%Rated Peak Volts	55°C	85°C	105°C	125°C	150°C
		Ripple Current (A RMS)				
100Hz	100%	0.97	-	-	-	-
	90%	1.15	0.67	-	-	-
	80%	1.36	0.96	0.42	-	-
	70%	1.36	1.15	0.76	-	-
	60%	1.36	1.36	1.05	0.61	0.35
1kHz	100%	1.16	-	-	-	-
	90%	1.38	0.80	-	-	-
	80%	1.63	1.15	0.50	-	-
	70%	1.63	1.38	0.91	-	-
	60%	1.63	1.63	1.26	0.73	0.42
10kHz	100%	1.48	-	-	-	-
	90%	1.76	1.22	-	-	-
	80%	2.07	1.46	0.64	-	-
	70%	2.07	1.76	1.16	-	-
	60%	2.07	2.07	1.60	0.93	0.54
40kHz	100%	1.77	-	-	-	-
	90%	2.10	1.28	-	-	-
	80%	2.48	1.75	0.76	-	-
	70%	2.48	2.10	1.39	-	-
	60%	2.48	2.48	1.92	1.11	0.64
100kHz	100%	1.94	-	-	-	-
	90%	2.30	1.34	-	-	-
	80%	2.72	1.92	0.84	-	-
	70%	2.72	2.30	1.52	-	-
	60%	2.72	2.72	2.10	1.22	0.71

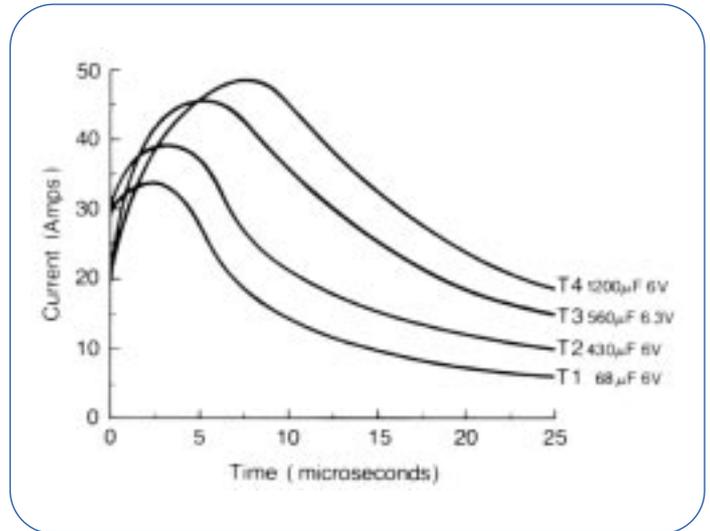
1. TH-Typical Construction



2. In-Rush Currents

Typical curves showing the current flow during the first 25 microseconds of charging are shown below. Although a very low impedance source was used (battery), it is likely that circuit restrictions limited the current flow as currents of the order of 70 amps have been reported from the field for the TH T4 case size.

The TH range may be charged and/or discharged directly across the terminals with no protective resistor. This is a positive advantage over the tantalum 'solid' capacitors where protective resistors must be used to prevent short circuit breakdown by avalanche effect.



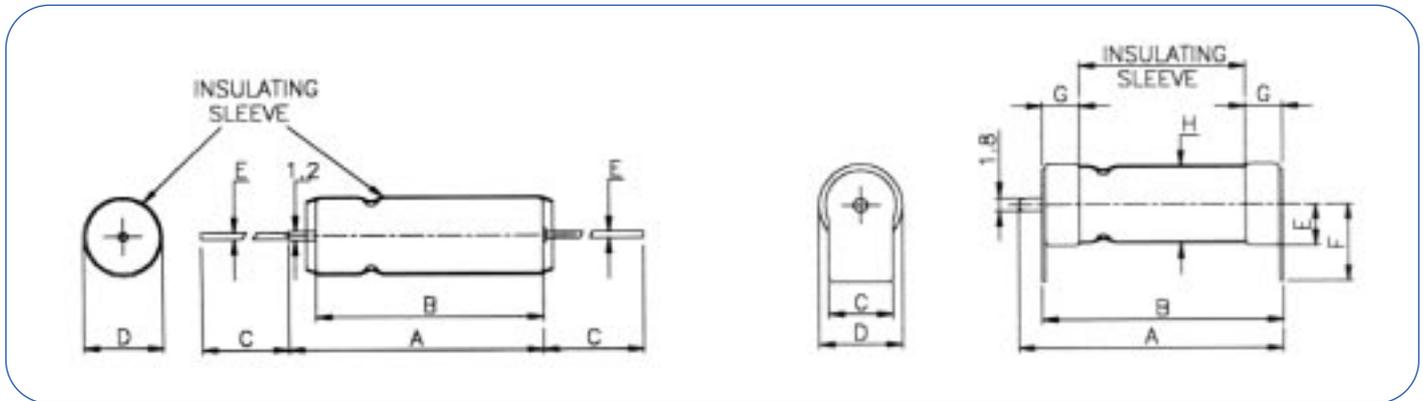
Note: design details may vary according to case size

TTH & SMTTH Ripple Current Multipliers

Applied Ripple Current		Operating Temperature						
Frequency	%Rated Peak Volts	55°C	85°C	105°C	125°C	150°C	175°C	200°C
		Ripple Current Multipliers						
100Hz	100%	.60	.39	-	-	-	-	-
	90%	.60	.46	-	-	-	-	-
	80%	.60	.52	.35	-	-	-	-
	70%	.60	.58	.44	-	-	-	-
	50%	.60	.60	.46	.27	.22	.19	.13
1kHz	100%	.72	.45	-	-	-	-	-
	90%	.72	.55	-	-	-	-	-
	80%	.72	.62	.42	-	-	-	-
	70%	.72	.70	.52	-	-	-	-
	50%	.72	.72	.55	.32	.28	.23	.16
10kHz	100%	.88	.55	-	-	-	-	-
	90%	.88	.67	-	-	-	-	-
	80%	.88	.76	.52	-	-	-	-
	70%	.88	.85	.64	-	-	-	-
	50%	.88	.88	.68	.40	.34	.28	.19
40kHz	100%	1.0	.63	-	-	-	-	-
	90%	1.0	.77	-	-	-	-	-
	80%	1.0	.87	.59	-	-	-	-
	70%	1.0	.97	.73	-	-	-	-
	50%	1.0	1.0	.77	.45	.37	.32	.22
100kHz	100%	1.1	.69	-	-	-	-	-
	90%	1.1	.85	-	-	-	-	-
	80%	1.1	.96	.65	-	-	-	-
	70%	1.1	1.07	.80	-	-	-	-
	50%	1.1	1.1	.85	.50	.42	.35	.24

TTH Fig.1 Case Sizes - Outline and Dimensions

SMTTH Fig.2 Case Sizes - Outline and Dimensions



Note: The anode leadout stub must not be bent.

Surface mount material - 0.25mm Nickel

TTH Dimensions (mm)

Case Size	A max	B max	C min	D max	E ±0.1
1	16	13	30	5.6	0.65
2	21	18	30	7.8	0.65
3	24	21	30	10.2	0.65
4	31	28	30	10.2	0.65

Weight (g)

Case Size	1	2	3	4
Approx. Weight (g)	2.5	5.5	10.5	14.5

SMTTH Dimensions (mm)

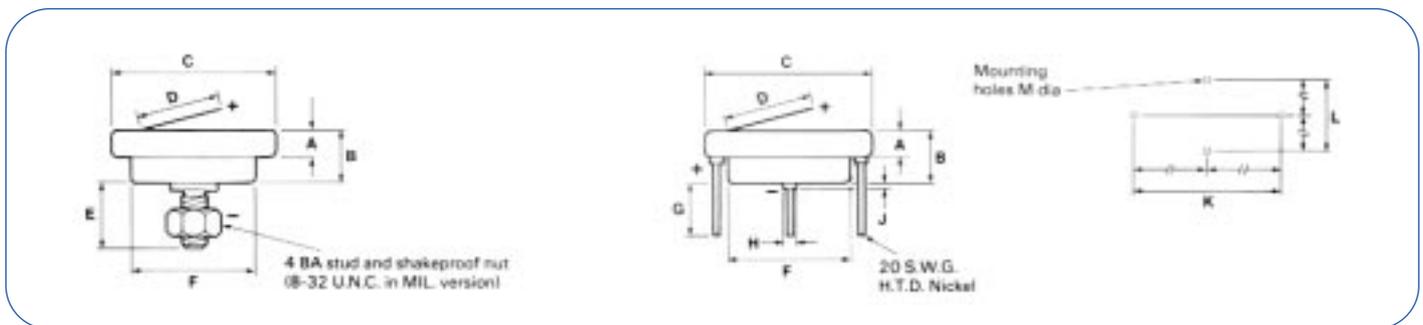
Case Size	A ±0.38	B ±0.38	C ±0.2	D ±0.2	E ±0.2	F ±0.2	G ±0.2	H ±0.25
1	17.8	15.0	3.8	6.0	3.0	7.9	3.6	5.6
2	22.6	19.4	6.1	8.2	4.1	8.9	3.7	7.8
3	25.8	23.4	8.4	10.8	5.4	10.2	4.8	10.2
4	33.3	30.2	8.4	10.8	5.4	10.2	4.8	10.2

Weight (g)

Case Size	1	2	3	4
Approx. Weight (g)	2.5	5.6	11.6	15.0

Dimensions for CA and CAE styles

Dimensions for CAPC and CAEPC styles



A max	B max	C max	D max	E max	F max	G min	H max	J max	K crs	L crs	M dia
3.6	8.5	21.8	8.4	8.4	16.2	5.8	1.8	0.8	20.3 (0.800")	10.2 (0.800")	1.1

Style	CA CAE	CAPC CAEPC
Approx. Weight (g)	18.1	17.3

All dimensions in mm.



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