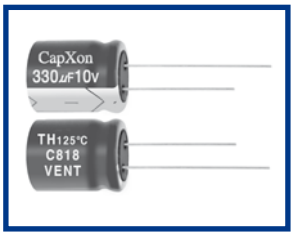
TH Series High Temperature



Features

- ◆ The series has guaranteed operating life of 1000~2000 hours at 125℃ widest operating temperature range, -40 to +125℃
- ◆ Applications : High reliability equipment, filtering circuit of switching power supply, and industrial control equipment.
- ◆ For detail specifications, please refer to Engineering Bulletin No. E129
- ◆ RoHS Compliant

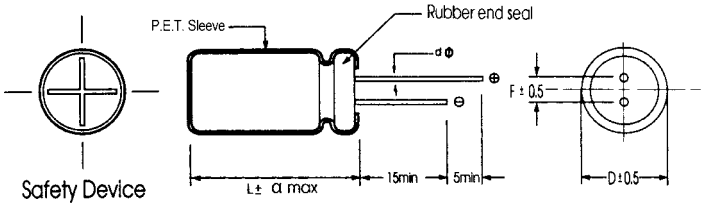
Specifications

Item	Performance Characteristics	
Operating Temperature Range	-40 to +125℃	-25 to +125℃
Rated Voltage Range	10 to 100 VDC	160 to 350 VDC
Capacitance Range	0.47 to 1000 μF	1 to 100 μF
Capacitance Tolerance	±20%(120Hz,+20℃)	
Leakage Current (+20℃,max.)	I≦0.01 CV or 3(μA) After 1 minute whichever is greater measured with rated working voltage applied.	I≦0.02 CV (μA) After 1 minute withrated working voltage applied.
Dissipation Factor (tan δ ，at 20℃ ，120Hz)	Working Voltage(VDC) 10 16 25 35 50 63 100 D. F.(%) max. 18 15 13 12 10 8 7 Working Voltage(VDC) 160 200 250 350 D. F.(%) max. 7 8 10 12 For capacitance ＞1000 uF, add 2% per another 1000uF.	
Low Temperature Characteristics (at 120Hz)	Impedance ratio max Working Voltage(VDC) 10 16 25 35 50 63 100 160~250 350~450 Z-25℃／Z+20℃ 3 2 2 2 2 2 2 3 6 Z-40℃／Z+20℃ 4 4 4 4 4 4 4 -	
Load Life	Test conditions Duration time : 1000~2000Hrs Ambient temperature : +125℃ Applied voltage : Rated DC working voltage After test requirement at +20℃ Capacitance change : ≦ ±20% of the initial measured value Dissipation factor : ≦ 300% of the initial specified value Leakage current : ≦ The initial specified value Dϕ / Life hours: ≦8ϕ 1,000; ≧10ϕ 2,000	
Shelf Life	Test conditions Duration time : 1000Hrs Ambient temperature : +125℃ Applied voltage : None After test requirement at +20℃: Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.	

Multiplier for Ripple Current vs. Frequency

CAP(μF)＼Frequency(Hz)	50(60)	120	400	1K	10K	50K-100K
CAP≦10	0.8	1	1.30	1.45	1.65	1.70
10＜CAP≦100	0.8	1	1.23	1.36	1.48	1.53
100＜CAP≦1000	0.8	1	1.16	1.25	1.35	1.38
1000＜CAP	0.8	1	1.11	1.17	1.25	1.28

Diagram of Dimensions:(unit:mm)



Dϕ	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
dϕ	0.5			0.6		0.8	

α	D＜18	D＝18		D＞18
		L＜35.5	L≧35.5	
	1.5	1.5	2.0	2.0

Case Size

ϕ DxL(mm)

WV / Cap(μ F)	10		16		25		35		50		63	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
4.7											6.3X11	38
10									6.3X11	48	8X11.5	55
22					6.3X11	70	6.3X11	82	6.3X11	75	8X11.5	93
									8X11.5	88		
33			6.3X11	91	6.3X11	100	8X11.5	108	8X11.5	122	8X11.5	110
											10X12.5	132
47	5X11	92	6.3X11	110	6.3X11	110	8X11.5	130	8X11.5	140	10X12.5	150
					8X11.5	130	10X12.5	158	10X12.5	164	10X16	172
100	6.3X11	145	6.3X11	175	8X11.5	210	10X12.5	230	10X16	250	10X16	260
			8X11.5	206	10X12.5	250	10X16	262	10X20	277	10X20	295
220	8X11.5	330	8X11.5	340	10X12.5	420	10X16	480	10X25	560	13X20	540
			10X12.5	400	10X16	470	10X20	540	13X20	587	13X25	595
330	8X11.5	340	10X12.5	470	10X16	570	10X25	680	13X20	810	13X25	880
	10X12.5	410	10X16	525	10X20	631	13X20	718	13X25	900	16X25	1000
470	10X2.5	505	10X16	650	10X25	770	13X20	810	13X25	900		
	10X16	525	10X20	720	13X20	810	13X25	900	16X25	1000		
1000	10X16	870	10X25	950	13X25	970	16X25	1080				
	10X20	960	13X20	1000	16X25	1100	16X31.5	1200				

WV / Cap(μ F)	100		160		200		250		350	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.47	6.3X11	14								
1	6.3X11	24	6.3X11	30	6.3X11	36	6.3X11	41	8X11.5	45
2.2	6.3X11	31	6.3X11	37	6.3X11	43	6.3X11	42	8X11.5	47
							8X11.5	50	10X12.5	55
3.3	6.3X11	36	6.3X11	37	8X11.5	48	8X11.5	50	10X12.5	55
			8X11.5	41			10X12.5	53	10X16	60
4.7	6.3X11	38	8X11.5	52	8X11.5	50	10X12.5	60	10X16	68
	8X11.5	45			10X12.5	60	10X16	68	10X20	75
10	8X11.5	60	8X11.5	70	10X12.5	80	10X16	83	10X25	105
	10X12.5	70	10X12.5	82	10X16	88	10X20	92	13X20	110
22	10X2.5	90	10X16	115	10X25	125	13X20	145	13X25	160
	10X16	100	10X20	128	13X20	135	13.25	160	16X25	180
33	10X16	140	10X25	155	13X20	155	13X25	164	16X25	180
	10X20	158	13X20	164	13X25	172	16X25	185	16X31.5	200
47	10X25	175	13X20	180	13X25	190	16X25	205	16X31.5	230
	13X20	185	13X25	200	16X25	215	16X31.5	230	16X35.5	245
100	13X25	270	13X25	320	16X25	360				
	16X25	310	16X25	365	16X31.5	400				

Ripple Current (mA, rms) at 125℃ 120Hz