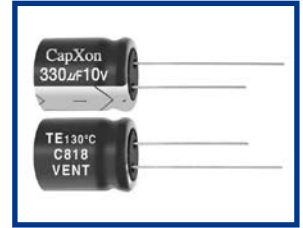


TE Series High Temperature



Features

- ◆ The series has guaranteed operation life of 2000~3000 hours at 130°C wide operating temperature range, -40 to +130°C
- ◆ Applications :High reliability equipment, filtering circuit of switching power supply, and industrial control equipment.
- ◆ For detail specifications, please refer to Engineering Bulletin NO. E147
- ◆ RoHS Compliant

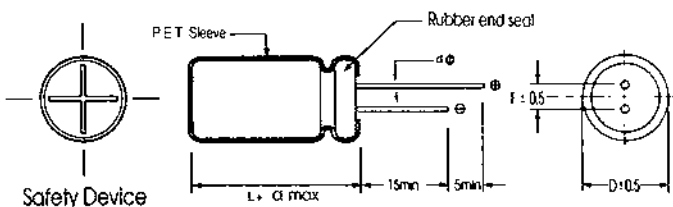
Specifications

Item	Performance Characteristics																		
Operating Temperature Range	-40 to +130°C																		
Rated Voltage Range	10 to 50 VDC																		
Capacitance Range	3.3to 4700 µ F																		
Capacitance Tolerance	±20%(120Hz,+20°C)																		
Leakage Current (+20°C,max.)	I ≤ 0.01 CV or 3 (µ A) After 1 minute whichever is greater measured with rated working voltage applied.																		
Dissipation Factor (tan δ , at 20°C , 120Hz)	<table border="1"> <tr> <td>Working Voltage(VDC)</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>D. F.(%) max.</td> <td>20</td> <td>16</td> <td>14</td> <td>12</td> <td>10</td> </tr> </table> <p>For capacitance > 1000uF, add 2% per another 1000uF.</p>	Working Voltage(VDC)	10	16	25	35	50	D. F.(%) max.	20	16	14	12	10						
Working Voltage(VDC)	10	16	25	35	50														
D. F.(%) max.	20	16	14	12	10														
Low Temperature Characteristics (at 120Hz)	<p>Impedance ratio max</p> <table border="1"> <tr> <td>Working Voltage(VDC)</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Z-25°C / Z+20°C</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C / Z+20°C</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> </tr> </table>	Working Voltage(VDC)	10	16	25	35	50	Z-25°C / Z+20°C	3	2	2	2	2	Z-40°C / Z+20°C	4	4	4	4	4
Working Voltage(VDC)	10	16	25	35	50														
Z-25°C / Z+20°C	3	2	2	2	2														
Z-40°C / Z+20°C	4	4	4	4	4														
Load Life	<p>Test conditions</p> <p>Duration time : as right</p> <p>Ambient temperature : +130°C</p> <p>Applied voltage : Rated DC working voltage</p> <table border="1"> <tr> <th>D φ</th> <th>Life hours</th> </tr> <tr> <td>≤ 8 φ</td> <td>2,000</td> </tr> <tr> <td>≥ 10 φ</td> <td>3,000</td> </tr> </table> <p>After test requirement at +20°C</p> <p>Capacitance change : ≤ ±30% of the initial measured value</p> <p>Dissipation factor : ≤ 300% of the initial specified value</p> <p>Leakage current : ≤ The initial specified value</p>	D φ	Life hours	≤ 8 φ	2,000	≥ 10 φ	3,000												
D φ	Life hours																		
≤ 8 φ	2,000																		
≥ 10 φ	3,000																		
Shelf Life	<p>Test conditions</p> <p>Duration time : 1000Hrs</p> <p>Ambient temperature : +130°C</p> <p>Applied voltage : None</p> <p>After test requirement at +20°C:Same limits as Load life.</p> <p>Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.</p>																		

Multiplier for Ripple Current vs. Frequency

CAP(µ F)\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)



D φ	6.3	8	10	13	16	18
F	2.5	3.5	5.0	5.0	7.5	7.5
d φ	0.5		0.6		0.8	

Case Size

φ DxL(mm)

WV (SV) Cap(μF)	10 (13)		16 (20)		25 (32)		35 (44)		50 (63)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
3.3										
4.7										
10									6.3x11	150
22									6.3x11	220
33									8x11.5	270
47									10x12.5	300
100							10x16	420	10x16	480
220	8x11.5	250	10x12.5	260	10x16	330	10x20	520	13x20	700
330	8x11.5	330	10x16	360	10x20	540	13x20	700	13x25	820
	10x12.5	350								
470	10x12.5	500	10x20	600	13x20	720	13x25	880	16x25	1000
	10x16	540								
1000	10x20	880	13x20	930	16x25	950	16x31.5	1150	16x31.5	1850
1500	13x20	1120	13x25	1250	16x31.5	1550	16x35.5	1850		
2200	13x25	1350	16x25	1400	16x35.5	2010	18x35.5	2300		
3300	16x25	1820	16x31.5	2150	18x35.5	2300				
4700	16x31.5	2210	16x35.5	2350						

Ripple Current (mA, rms) at 130°C 120Hz