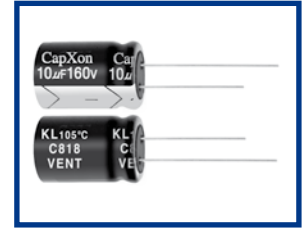


KL Series Long Life 5,000 hrs

Features

- ◆ Used in electronic ballast, switching power supply, industrial measuring instruments.
- ◆ Load life 5000 Hrs at 105°C
- ◆ Safety vent construction design.
- ◆ For detail specifications, please refer to Engineering Bulletin No. E125
- ◆ RoHS Compliant



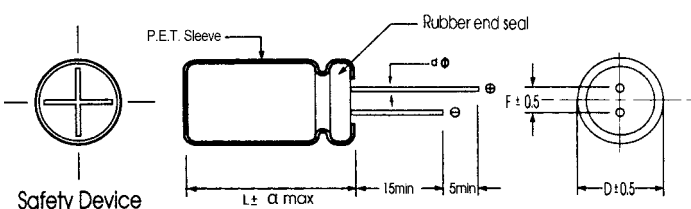
Specifications

Item	Performance Characteristics														
Operating Temperature Range	-25 to +105°C														
Rated Voltage Range	160 to 450 VDC														
Capacitance Range	10 to 220 µF														
Capacitance Tolerance	±20%(120Hz,+20°C)														
Leakage Current (+20°C,max.)	$I \leq 0.04 CV + 100 (\mu A)$ After 1 minute with rated working voltage applied.														
Dissipation Factor (tan δ , at 20°C , 120Hz)	<table border="1"> <thead> <tr> <th>Working Voltage(VDC)</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>D. F.(%) max.</td> <td>12</td> <td>12</td> <td>12</td> <td>15</td> <td>15</td> <td>17</td> </tr> </tbody> </table>	Working Voltage(VDC)	160	200	250	350	400	450	D. F.(%) max.	12	12	12	15	15	17
Working Voltage(VDC)	160	200	250	350	400	450									
D. F.(%) max.	12	12	12	15	15	17									
Low Temperature Characteristics (at 120Hz)	Impedance ratio max <table border="1"> <thead> <tr> <th>Working Voltage(VDC)</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>Z-25°C / Z+20°C</td> <td>3</td> <td>3</td> <td>3</td> <td>6</td> <td>6</td> <td>6</td> </tr> </tbody> </table>	Working Voltage(VDC)	160	200	250	350	400	450	Z-25°C / Z+20°C	3	3	3	6	6	6
Working Voltage(VDC)	160	200	250	350	400	450									
Z-25°C / Z+20°C	3	3	3	6	6	6									
Load Life	Test conditions Duration time : 5000Hrs Ambient temperature : +105°C Applied voltage : Rated DC working voltage After test requirement at +20°C Capacitance change : ≤ ±20% of the initial measured value Dissipation factor : ± 200% of the initial specified value Leakage current : ± The initial specified value														
Shelf Life	Test conditions Duration time : 1000Hrs Ambient temperature : +105°C Applied voltage : None After test requirement at +20°C: 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

Frequency(Hz)	120	1K	10K	100KHz
Multiplier	1.0	1.5	1.70	1.90

Diagram of Dimensions:(unit:mm)



D φ	10	13	16	18	22
F	5.0	5.0	7.5	7.5	10
d φ	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

WV Cap(μF)		160		200		250		350		400		450	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
10		10x16	115	10x20	210	10x20	200	13x20	180	13x20	200	13x25	130
22		10x20	195	10x20	255	13x20	350	13x20	250	13x25	320	16x25	170
33		13x20	250	13x20	350	13x25	400	16x21	320	16x25	350	16x31.5	215
47		13x20	300	13x20	490	13x25	500	16x31.5	440	16x31.5	450		
68		13x25	390	13x25	530	16x25	600	16x35.5	450				
100		16x25	560	16x25	810	18x31.5	660						
220		16x31.5	730	18x31.5	970	22x41	750						

φ DxL(mm)

Ripple Current (mA, rms) at 105°C 120Hz