

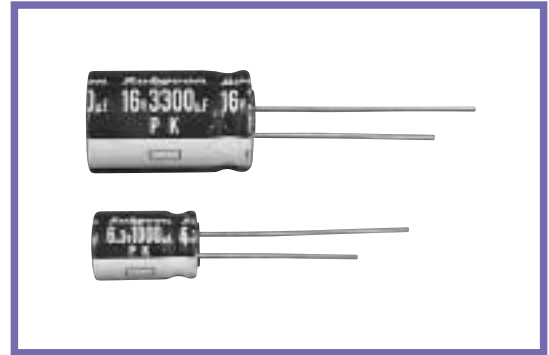
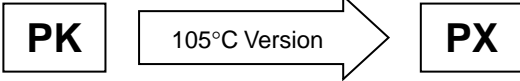
**PK SERIES**

**UPGRADE**

**85°C Miniaturized**

**◆ FEATURES**

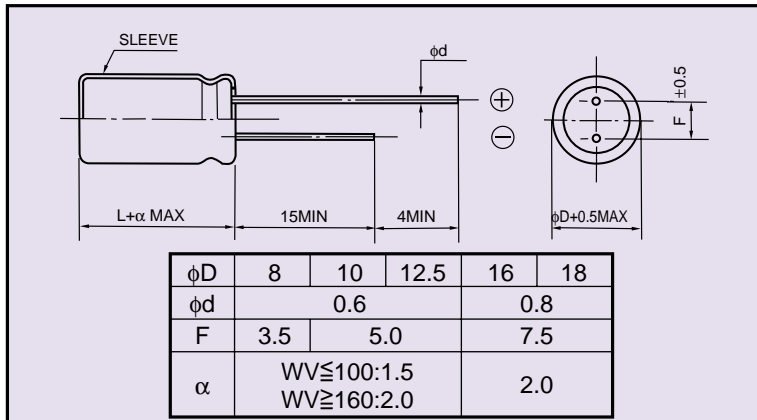
- Load life : 85°C 2000 hours.



**◆ SPECIFICATIONS**

Items	Characteristics																																																										
Category Temperature Range	-40~+85°C	-25~+85°C																																																									
Rated Voltage Range	6.3~400V.DC	450V.DC																																																									
Capacitance Tolerance	±20%(20°C, 120Hz)																																																										
Leakage Current(MAX)	6.3~100V.DC	160~450V.DC																																																									
	I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage)	CV≤1000	CV>1000																																																								
		I=0.1CV+40μA (1minute) I=0.03CV+15μA (5minutes)	I=0.04CV+100μA (1minute) I=0.02CV+25μA (5minutes)																																																								
I=Leakage Current(μA)    C=Rated Capacitance(μF)    V=Rated Voltage(V)																																																											
Dissipation Factor(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>6.3</th><th>10</th><th>16</th><th>25</th><th>35</th><th>50</th><th>63</th><th>100</th><th>160</th><th>200</th><th>250</th><th>350</th><th>400</th><th>450</th> </tr> </thead> <tbody> <tr> <td>tanδ</td> <td>0.28</td><td>0.24</td><td>0.20</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.10</td><td>0.20</td><td>0.20</td><td>0.20</td><td>0.25</td><td>0.25</td><td>0.25</td> </tr> </tbody> </table>													Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	tanδ	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.10	0.20	0.20	0.20	0.25	0.25	0.25	(20°C, 120Hz)															
	Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450																																												
tanδ	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.10	0.20	0.20	0.20	0.25	0.25	0.25																																													
When rated capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.																																																											
Endurance	After applying rated voltage with rated ripple current for 2000hrs at 85°C, the capacitors shall meet the following requirements.																																																										
	Capacitance Change	Within ±25% of the initial value.																																																									
	Dissipation Factor	Not more than 200% of the specified value.																																																									
Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>6.3</th><th>10</th><th>16</th><th>25</th><th>35</th><th>50</th><th>63</th><th>100</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>5</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>3</td><td>3</td><td>4</td><td>5</td><td>5</td><td>7</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>12</td><td>10</td><td>8</td><td>5</td><td>4</td><td>3</td><td>3</td><td>3</td><td>4</td><td>4</td><td>8</td><td>8</td><td>10</td><td>-</td> </tr> </tbody> </table>													Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	Z(-25°C)/Z(20°C)	5	4	3	2	2	2	2	2	3	3	4	5	5	7	Z(-40°C)/Z(20°C)	12	10	8	5	4	3	3	3	4	4	8	8	10	-	(120Hz)
	Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450																																												
	Z(-25°C)/Z(20°C)	5	4	3	2	2	2	2	2	3	3	4	5	5	7																																												
Z(-40°C)/Z(20°C)	12	10	8	5	4	3	3	3	4	4	8	8	10	-																																													
Leakage Current																																																											

**◆ DIMENSIONS**



(mm)

**◆ MULTIPLIER FOR RIPPLE CURRENT**

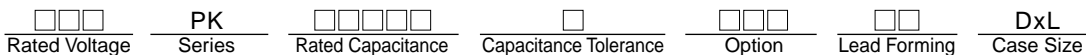
(1) Frequency coefficient

Frequency (Hz)	60(50)	120	500	1k	10k≤
	Coefficient	0.80	1.00	1.20	1.30
2.2~47μF	0.80	1.00	1.10	1.15	1.20
100~1000μF	0.80	1.00	1.05	1.10	1.15
2200~33000μF	0.80	1.00	1.05	1.10	1.15

(2) Temperature coefficient

Ambient Temperature (°C)	85	70	50≥
Coefficient	1.0	1.6	2.0

**◆ PART NUMBER**



**◆ STANDARD SIZE, RATED RIPPLE CURRENT**

 Size  $\phi$ DxL(mm), Ripple Current (mA r.m.s./85°C, 120Hz)

Cap( $\mu$ F)	6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)		63 (1J)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
100													8x11.5	290
220									8x11.5	370	10x12.5	435	10x16	490
330							8x11.5	410	10x12.5	500	10x16	590	10x20	710
470					8x11.5	460	8x11.5	550	10x12.5	680	10x20	760	12.5x20	900
680			8x11.5	580	8x11.5	620	10x12.5	780	10x16	910	12.5x20	1000	12.5x25	1200
1000	8x11.5	590	8x11.5	660	10x12.5	720	10x16	870	10x20	1180	12.5x25	1350	16x25	1350
2200	10x16	920	10x16	1090	10x20	1320	12.5x20	1500	16x25	1810	16x31.5	1980	18x31.5	1800
3300	10x20	1200	10x20	1440	12.5x20	1600	16x25	2000	16x25	1990	18x31.5	2100	18x40	2600
4700	12.5x20	1550	12.5x20	1680	12.5x25	2050	16x25	2120	16x35.5	2500	18x40	2800		
6800	12.5x25	1920	12.5x25	2150	16x25	2250	16x31.5	2440	18x35.5	2740				
10000	16x25	2370	16x25	2270	16x31.5	2660	18x35.5	2900						
15000	16x31.5	2550	16x35.5	2880	18x35.5	2950								
22000	16x35.5	2900	18x35.5	3100										
33000	18x40	3400												

Cap( $\mu$ F)	100 (2A)		160 (2C)		200 (2D)		250 (2E)		350 (2V)		400 (2G)		450 (2W)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
2.2											8x11.5	31	8x11.5	29
3.3									8x11.5	45	8x11.5	48	8x11.5	33
4.7									8x11.5	55	10x12.5	56	10x12.5	46
10			8x11.5	80	8x11.5	85	10x12.5	90	10x16	90	10x16	90	10x20	84
22			10x12.5	130	10x16	150	10x16	150	12.5x20	185	12.5x20	200	12.5x25	140
33	8x11.5	185	10x16	180	10x20	205	10x20	205	12.5x25	240	12.5x25	240	16x25	180
47	8x11.5	220	10x20	230	10x20	220	12.5x20	260	16x25	300	16x25	250	16x31.5	220
100	10x16	380	12.5x25	430	12.5x25	320	16x25	450	18x31.5	520	18x35.5	420	18x40	280
220	12.5x20	610	16x31.5	645	16x31.5	540	18x35.5	680						
330	12.5x25	760	16x35.5	700	18x35.5	800								
470	16x25	1000	18x40	1200										
680	16x31.5	1100												
1000	18x31.5	1200												

 Please use YK series about  $\phi$ 5 and  $\phi$ 6.3.