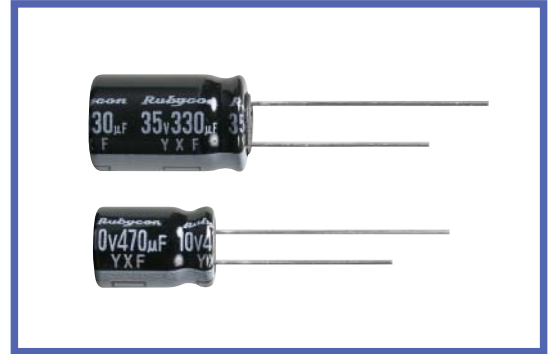


**YXF SERIES**
**105°C Long Life. Low impedance.**
**FEATURES**

- 1 Load Life : 105°C 2000~10000hours.
- RoHS compliance.
- Low impedance at 100kHz with selected materials.


**◆ SPECIFICATIONS**

Items	Characteristics																																				
Category Temperature Range	-40 ~ +105°C																																				
Rated Voltage Range	6.3~250V.DC																																				
Capacitance Tolerance	20%(20°C,120Hz)																																				
Leakage Current(MAX)	6.3wv~100wv $I=0.01CV$ or $3\mu A$ whichever is greater. (After 2 minutes) <span style="float:right">I=Leakage Current(<math>\mu A</math>)</span>  160wv~250wv $I=0.04CV + 100\mu A$ (After 1 minute application of rated voltage) <span style="float:right">C=Rated Capacitance(<math>\mu F</math>)</span>  $I=0.02CV + 25\mu A$ (After 5 minutes application of rated voltage) <span style="float:right">V=Rated Voltage(V)</span>																																				
Dissipation Factor(MAX) ( $\tan\delta$ )	<table border="1" style="display:inline-table; margin-right: 20px;"> <tr> <td>Rated Voltage (V)</td> <td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td><td>160</td><td>200</td><td>250</td> </tr> <tr> <td><math>\tan\delta</math></td> <td>0.22</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.09</td><td>0.08</td><td>0.12</td><td>0.12</td><td>0.12</td> </tr> </table> (20°C,120Hz) When rated capacitance is over 1000 $\mu F$ , $\tan\delta$ shall be added 0.02 to the listed value with increase of every 1000 $\mu F$ .	Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	$\tan\delta$	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.12	0.12	0.12												
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$\tan\delta$	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.12	0.12	0.12																										
Endurance	After life test with rated ripple current at conditions stated in the table below, the capacitors shall meet the following requirements. <table border="1" style="display:inline-table; margin-right: 20px;"> <tr> <td>Capacitance Change</td> <td>Within <math>\pm 25\%</math> of the initial value.(160wv to 250wv:<math>\pm 20\%</math>)</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table> <table border="1" style="display:inline-table;"> <tr> <td rowspan="2">Case Size</td> <td colspan="3">Life Time (hrs)</td> </tr> <tr> <td>6.3~10WV</td> <td>16~100WV</td> <td>160~250WV</td> </tr> <tr> <td><math>\phi D \leq 6.3</math></td> <td>4000</td> <td>5000</td> <td>—</td> </tr> <tr> <td><math>\phi D = 8</math></td> <td>6000</td> <td>7000</td> <td>—</td> </tr> <tr> <td><math>\phi D = 10</math></td> <td>6000</td> <td>7000</td> <td>2000</td> </tr> <tr> <td><math>\phi D \geq 12.5</math></td> <td>8000</td> <td>10000</td> <td>2000</td> </tr> </table>	Capacitance Change	Within $\pm 25\%$ of the initial value.(160wv to 250wv: $\pm 20\%$ )	Dissipation Factor	Not more than 200% of the specified value.	Leakage Current	Not more than the specified value.	Case Size	Life Time (hrs)			6.3~10WV	16~100WV	160~250WV	$\phi D \leq 6.3$	4000	5000	—	$\phi D = 8$	6000	7000	—	$\phi D = 10$	6000	7000	2000	$\phi D \geq 12.5$	8000	10000	2000							
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1" style="display:inline-table; margin-right: 20px;"> <tr> <td>Rated Voltage (V)</td> <td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td><td>160</td><td>200</td><td>250</td> </tr> <tr> <td><math>Z(-25^\circ C)/Z(20^\circ C)</math></td> <td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>3</td><td>3</td><td>3</td> </tr> <tr> <td><math>Z(-40^\circ C)/Z(20^\circ C)</math></td> <td>8</td><td>6</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>4</td><td>4</td><td>4</td> </tr> </table> (120Hz)	Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	$Z(-25^\circ C)/Z(20^\circ C)$	4	3	2	2	2	2	2	2	3	3	3	$Z(-40^\circ C)/Z(20^\circ C)$	8	6	4	3	3	3	3	3	4	4	4
Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250																										
$Z(-25^\circ C)/Z(20^\circ C)$	4	3	2	2	2	2	2	2	3	3	3																										
$Z(-40^\circ C)/Z(20^\circ C)$	8	6	4	3	3	3	3	3	4	4	4																										

**◆ MULTIPLIER FOR RIPPLE CURRENT**

 Frequency coefficient  
(6.3wv~100wv)

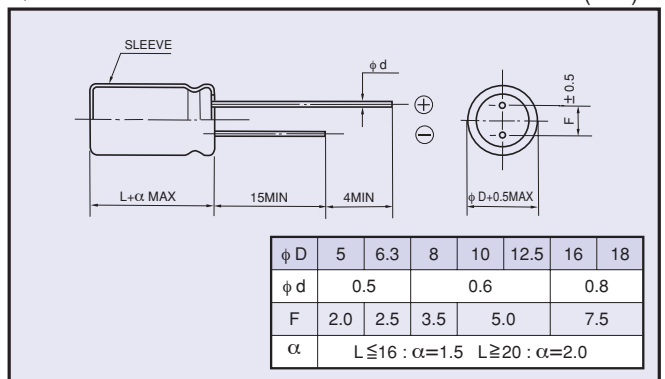
Frequency (Hz)	120	1k	10k	100k $\leq$
0.47~10 $\mu F$	0.42	0.60	0.80	1.00
22~33 $\mu F$	0.55	0.75	0.90	1.00
47~330 $\mu F$	0.70	0.85	0.95	1.00
470~1000 $\mu F$	0.75	0.90	0.98	1.00
2200~15000 $\mu F$	0.80	0.95	1.00	1.00

(160wv~250wv)

Frequency (Hz)	60(50)	120	1k	10k	100k $\leq$
Coefficient	0.40	0.50	0.75	0.90	1.00

**◆ DIMENSIONS**

(mm)


**◆ PART NUMBER**

□□□	YXF	□□□□□	□	□□□	□□	D×L
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Lead Forming	Case Size

**◆ STANDARD SIZE**

Rated Voltage (V-DC)	Rated capacitance (μF)	Size φ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance(Ω MAX)	
				20°C, 100kHz	-20°C, 100kHz
6.3 (0J)	100	5×11	150	0.90	3.6
	220	6.3×11	250	0.40	1.6
	330	6.3×11	250	0.40	1.6
	470	8×11.5	400	0.25	1.0
	1000	10×12.5	580	0.16	0.65
	2200	12.5×20	1300	0.062	0.21
	3300	12.5×20	1300	0.062	0.21
	4700	16×25	1850	0.034	0.096
	6800	16×25	1850	0.034	0.096
	10000	16×31.5	2000	0.029	0.087
15000	18×35.5	2200	0.025	0.058	
10 (1A)	100	5×11	150	0.90	3.6
	220	6.3×11	250	0.40	1.6
	330	8×11.5	400	0.25	1.0
	470	8×11.5	400	0.25	1.0
	1000	10×16	770	0.12	0.46
	2200	12.5×20	1300	0.062	0.21
	3300	12.5×25	1650	0.048	0.16
	4700	16×25	1850	0.034	0.096
	6800	16×31.5	2000	0.029	0.087
	10000	18×35.5	2200	0.025	0.058
16 (1C)	47	5×11	150	0.90	3.6
	100	6.3×11	250	0.40	1.6
	220	8×11.5	400	0.25	1.0
	330	8×11.5	400	0.25	1.0
	470	10×12.5	580	0.16	0.65
	1000	10×20	1050	0.078	0.30
	2200	12.5×25	1650	0.048	0.16
	3300	16×25	1850	0.034	0.096
	4700	16×31.5	2000	0.029	0.087
	6800	18×35.5	2200	0.025	0.058
25 (1E)	33	5×11	150	0.90	3.6
	47	5×11	150	0.90	3.6
	100	6.3×11	250	0.40	1.6
	220	8×11.5	400	0.25	1.0
	330	10×12.5	580	0.16	0.65
	470	10×16	770	0.12	0.46
	1000	12.5×20	1300	0.062	0.21
	2200	16×25	1850	0.034	0.096
	3300	16×31.5	2000	0.029	0.087
	4700	18×35.5	2200	0.025	0.058
35 (1V)	33	5×11	150	0.90	3.6
	47	6.3×11	250	0.40	1.6
	100	8×11.5	400	0.25	1.0
	220	10×12.5	580	0.16	0.65
	330	10×16	770	0.12	0.46
	470	10×20	1050	0.078	0.30
	1000	12.5×25	1650	0.048	0.16
	2200	16×31.5	2000	0.029	0.087
	3300	18×35.5	2200	0.025	0.058

**◆ STANDARD SIZE**

Rated Voltage (V·DC)	Rated capacitance (μF)	Size φ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance(Ω MAX)	
				20°C, 100kHz	-10°C, 100kHz
50 (1H)	0.47	5×11	17	5.5	12.0
	1	5×11	30	4.0	8.0
	2.2	5×11	43	2.5	6.0
	3.3	5×11	53	2.2	5.6
	4.7	5×11	88	1.9	5.0
	10	5×11	100	1.5	4.0
	22	5×11	150	0.90	3.6
	33	6.3×11	250	0.40	1.6
	47	6.3×11	250	0.40	1.6
	100	8×11.5	400	0.25	1.0
	220	10×16	770	0.12	0.46
	330	10×20	1050	0.078	0.30
	470	12.5×20	1300	0.062	0.21
	1000	16×25	1850	0.034	0.096
2200	18×35.5	2200	0.025	0.058	
63 (1J)	10	5×11	87	2.3	9.3
	22	6.3×11	140	1.3	5.2
	33	6.3×11	140	1.2	5.0
	47	8×11.5	210	0.63	2.8
	100	10×12.5	300	0.43	1.8
	220	10×20	520	0.21	0.84
	330	12.5×20	660	0.16	0.64
	470	12.5×25	750	0.12	0.45
	1000	16×31.5	1390	0.054	0.20
100 (2A)	0.47	5×11	15	6.0	17.0
	1	5×11	20	4.5	15.0
	2.2	5×11	30	3.0	13.0
	3.3	5×11	40	2.7	11.0
	4.7	5×11	65	2.5	10.0
	10	6.3×11	140	1.2	5.0
	22	8×11.5	160	0.63	2.8
	33	10×12.5	230	0.43	1.8
	47	10×16	290	0.31	1.5
	100	12.5×20	430	0.16	0.64
	220	16×25	900	0.073	0.27
	330	16×25	900	0.073	0.27

**◆ STANDARD SIZE**

Rated Voltage (V·DC)	Rated capacitance (μF)	Size φ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance(Ω MAX)
				20°C, 100kHz
160 (2C)	22	10×20	350	1.0
	33	12.5×20	450	0.70
	47	12.5×25	600	0.45
	68	12.5×25	600	0.45
	100	16×25	950	0.24
	150	16×31.5	1200	0.17
	220	18×35.5	1400	0.14
200 (2D)	22	10×20	350	1.0
	33	12.5×25	550	0.55
	47	12.5×25	600	0.44
	68	16×25	950	0.24
	100	16×31.5	1200	0.17
	150	16×35.5	1280	0.16
	220	18×35.5	1400	0.14
250 (2E)	22	10×20	300	1.4
	33	12.5×25	450	0.70
	47	16×25	850	0.31
	68	16×31.5	1050	0.22
	100	18×35.5	1200	0.18