YXF SERIES

105°C Long Life. Low impedance.
(Rated Voltage 6.3~100V.DC)

♦FEATURES

- Load Life : 105°C 4000~10000hours.
- Low impedance at 100kHz with selected materials.

♦SPECIFICATIONS

Items	Characteristics
Category Temperature Range	-40~+105°C
Rated Voltage Range	6.3~100V.DC
Capacitance Tolerance	±20%(20°C, 120Hz)
Leakage Current(MAX)	I=0.01CV or 3μA whichever is greater. (After 2 minutes) I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V)
Dissipation Factor(MAX)	(20°C, 120Hz) When rated capacitance is over 1000μF, tan δ shall be added 0.02 to the listed value with increase of every 1000μF.
Endurance	After life test with rated ripple current at conditions stated in the table below, the capacitors shall meet the following requirements.
Low Temperature Stability Impedance Ratio(MAX)	(120Hz)

Dissipation Factor(MAX):

Rated Voltage (V)	6.3	10	16	25	35	50	63	100
tan δ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08

Endurance:

Capacitance Change	Within ±25% of the initial value.
Dissipation Factor	Not more than 200% of the specified value.
Leakage Current	Not more than the specified value.

Case Dia	Life Time (hrs)	
	6.3~10WV	16~100WV
øD≦6.3	4000	5000
øD=8,10	6000	7000
øD≧12.5	8000	10000

Low Temperature Stability Impedance Ratio(MAX):

Rated Voltage (V)	6.3	10	16	25	35	50	63	100
Z(-25°C)/Z(20°C)	4	3	2	2	2	2	2	2
Z(-40°C)/Z(20°C)	8	6	4	3	3	3	3	3

♦MULTIPLIER FOR RIPPLE CURRENT

(1)Frequency coefficient

Frequency (Hz)		120	1k	10k	100k≦
Coefficient	0.47~10μF	0.42	0.60	0.80	1.00
	22~33μF	0.55	0.75	0.90	1.00
	47~330μF	0.70	0.85	0.95	1.00
	470~1000μF	0.75	0.90	0.98	1.00
	2200~15000μF	0.80	0.95	1.00	1.00

(2)Temperature coefficient

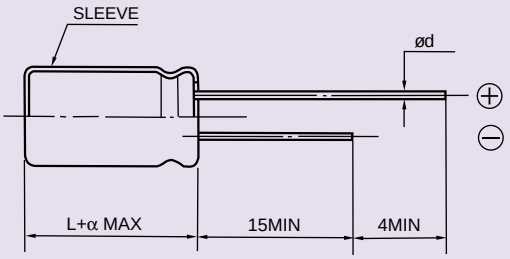
Ambient Temperature (°C)	105	85	65≧
Coefficient	1.0	1.7	2.1

♦PART NUMBER

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

♦DIMENSIONS

(mm)



øD	5	6.3	8	10	12.5	16	18
ød	0.5		0.6			0.8	
F	2.0	2.5	3.5	5.0		7.5	
α	L≦16 : α=1.5 L≧20 : α=2.0						

♦STANDARD SIZE

Rated voltage 6.3V(0J)				
Rated capacitance (μF)	Size øD×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX)	
			20°C, 100kHz	-10°C, 100kHz
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

Rated voltage 10V(1A)				
Rated capacitance (μF)	Size øD×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX)	
			20°C, 100kHz	-10°C, 100kHz
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

Rated voltage 16V(1C)				
Rated capacitance (μF)	Size øD×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX)	
			20°C, 100kHz	-10°C, 100kHz
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

Rated voltage 25V(1E)				
Rated capacitance (μF)	Size øD×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX)	
			20°C, 100kHz	-10°C, 100kHz
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

Rated voltage 35V(1V)				
Rated capacitance (μF)	Size øD×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX)	
			20°C, 100kHz	-10°C, 100kHz
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

Rated voltage 50V(1H)				
Rated capacitance (μF)	Size øD×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX)	
			20°C, 100kHz	-10°C, 100kHz
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

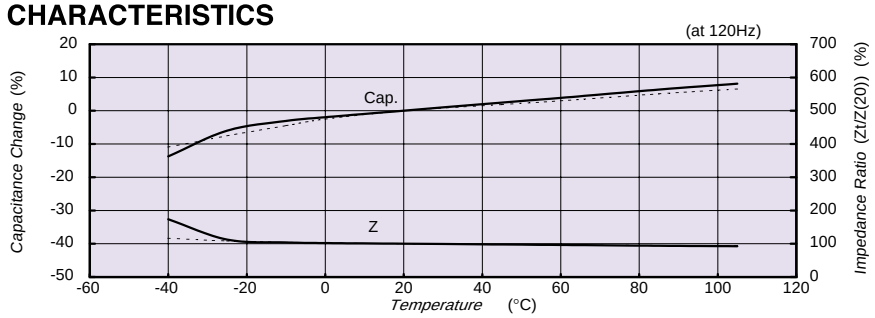
Rated voltage 63V(1J)				
Rated capacitance (μF)	Size øD×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX)	
			20°C, 100kHz	-10°C, 100kHz
10	5×11	87	2.3	9.3
22	6.3×11	140	1.3	5.2
33	6.3×11	140	1.2	5.0
47	8×11.5	210	0.63	2.8
100	10×12.5	300	0.43	1.8
220	10×20	520	0.21	0.84
330	12.5×20	660	0.16	0.64
470	12.5×25	750	0.12	0.45
1000	16×31.5	1390	0.054	0.20

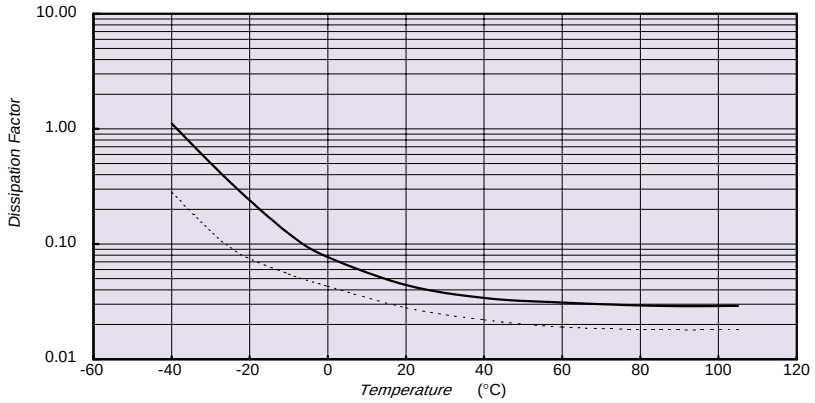
Rated voltage 100V(2A)				
Rated capacitance (μF)	Size øD×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX)	
			20°C, 100kHz	-10°C, 100kHz
0.47	5×11	15	6.0	17.0
1	5×11	20	4.5	15.0
2.2	5×11	30	3.0	13.0
3.3	5×11	40	2.7	11.0
4.7	5×11	65	2.5	10.0
10	6.3×11	140	1.2	5.0
22	8×11.5	160	0.63	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

♦CHARACTERISTIC DATA

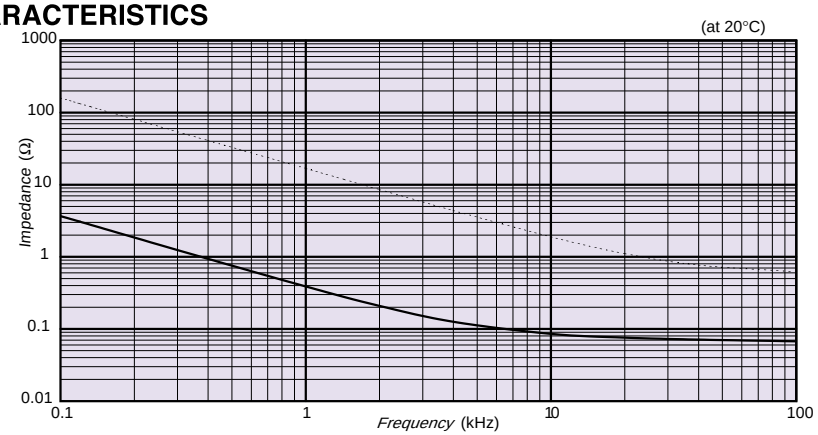
35 YXF 470M 10×20
50 YXF 10M 5×11

· TEMPERATURE CHARACTERISTICS

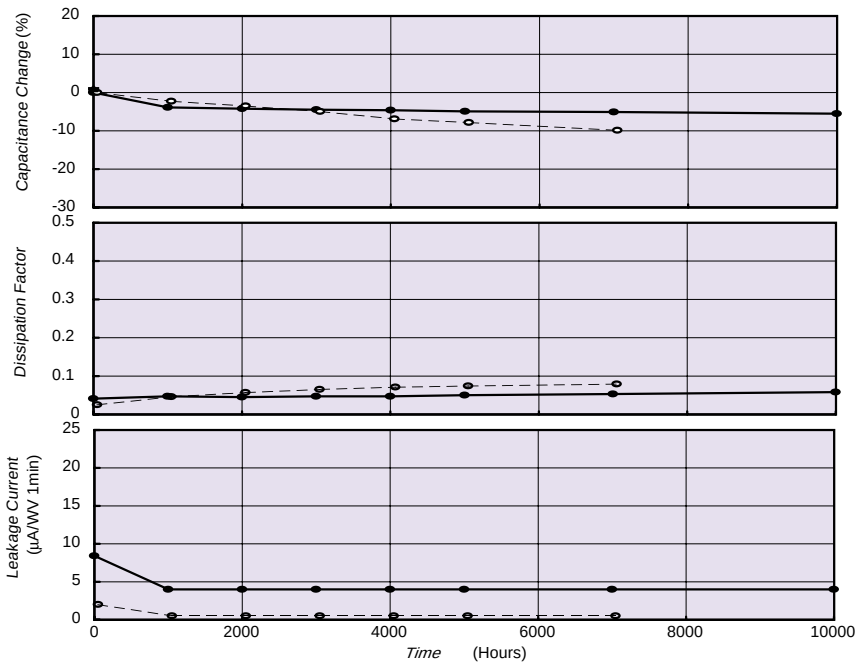




· FREQUENCY CHARACTERISTICS

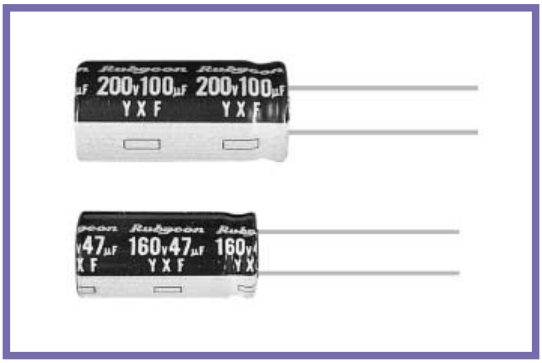


· ENDURANCE



YXF SERIES

105°C Low impedance.
(Rated Voltage 160~250V.DC)



♦SPECIFICATIONS

Items	Characteristics
Category Temperature Range	-40~+105°C
Rated Voltage Range	160~250V.DC
Capacitance Tolerance	±20%(20°C, 120Hz)
Leakage Current(MAX)	I=0.04CV + 100μA (After 1 minute application of rated voltage) I=0.02CV + 25μA (After 5 minutes application of rated voltage) I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V)
Dissipation Factor(MAX)	Rated Voltage (V): 160 / 200 / 250 tan δ: 0.12 / 0.12 / 0.12 (20°C, 120Hz)
Endurance	After applying rated voltage with rated ripple current for 2000hrs at 105°C, the capacitors shall meet the following requirements. Capacitance Change: Within ±20% of the initial value. Dissipation Factor: Not more than 200% of the specified value. Leakage Current: Not more than the specified value.
Low Temperature Stability Impedance Ratio(MAX)	Rated Voltage (V): 160 / 200 / 250 (120Hz) Z(-25°C)/Z(20°C): 3 / 3 / 3 Z(-40°C)/Z(20°C): 4 / 4 / 4

♦MULTIPLIER FOR RIPPLE CURRENT

(1)Frequency coefficient

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

(2)Temperature coefficient

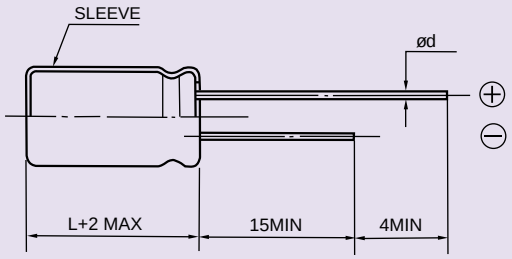
Ambient Temperature (°C)	105	85	65≧
Coefficient	1.0	1.7	2.1

♦PART NUMBER

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

♦DIMENSIONS

(mm)



øD	10	12.5	16	18
ød	0.6		0.8	
F	5.0		7.5	

♦STANDARD SIZE

Rated voltage 160V(2C)			
Rated capacitance (μF)	Size øD×L (mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX) 20°C, 100kHz
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

Rated voltage 200V(2D)			
Rated capacitance (μF)	Size øD×L (mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX) 20°C, 100kHz
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

Rated voltage 250V(2E)			
Rated capacitance (μF)	Size øD×L (mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX) 20°C, 100kHz
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