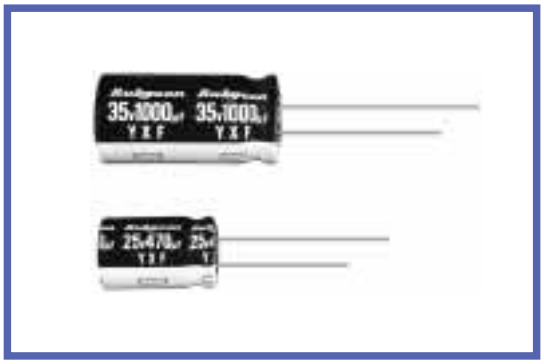
YXF SERIES

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
Operating 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=Nominal Capacitance(μF) V=Rated Voltage(V)
Dissipation Factor(MAX)	(20˚C, 120Hz) When nominal capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.
Load Life	After life test with max. 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
tanδ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08

Load Life:

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
φD≦6.3	4000	5000
φD=8,10	6000	7000
φD≧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

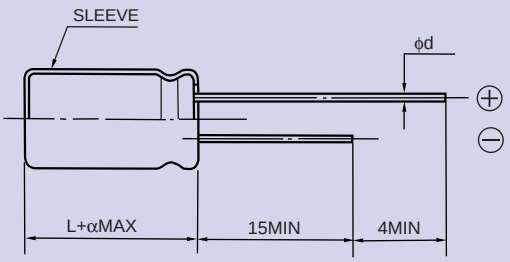
Frequency(Hz)		60(50)	120	1k	10k	100k≦
Coefficient	0.47~4.7μF	0.35	0.42	0.60	0.80	1.00
	10~33μF	0.45	0.55	0.75	0.90	1.00
	47~330μF	0.60	0.70	0.85	0.95	1.00
	470~1000μF	0.65	0.75	0.90	0.98	1.00
	2200~15000μF	0.75	0.80	0.95	1.00	1.00

(2) Temperature coefficient

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

♦DIMENSIONS

(mm)



ϕD	5	6.3	8	10	12.5	16	18
ϕd	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)				
Nominal capacitance (μF)	Size ϕDxL(mm)	Maximum permissible ripple current (mA r.m.s./105˚C, 100kHz)	Impedance (ΩMAX)	
			20˚C, 100kHz	-10˚C, 100kHz
100	5x11	150	0.90	3.6
220	6.3x11	250	0.40	1.6
330	6.3x11	250	0.40	1.6
470	8x11.5	400	0.25	1.0
1000	10x12.5	580	0.16	0.65
2200	12.5x20	1300	0.062	0.21
3300	12.5x20	1300	0.062	0.21
4700	16x25	1850	0.034	0.096
6800	16x25	1850	0.034	0.096
10000	16x31.5	2000	0.029	0.087
15000	18x35.5	2200	0.025	0.058

Rated voltage 10V(1A)				
Nominal capacitance (μF)	Size ϕDxL(mm)	Maximum permissible ripple current (mA r.m.s./105˚C, 100kHz)	Impedance (ΩMAX)	
			20˚C, 100kHz	-10˚C, 100kHz
100	5x11	150	0.90	3.6
220	6.3x11	250	0.40	1.6
330	8x11.5	400	0.25	1.0
470	8x11.5	400	0.25	1.0
1000	10x16	770	0.12	0.46
2200	12.5x20	1300	0.062	0.21
3300	12.5x25	1650	0.048	0.16
4700	16x25	1850	0.034	0.096
6800	16x31.5	2000	0.029	0.087
10000	18x35.5	2200	0.025	0.058

Rated voltage 16V(1C)				
Nominal capacitance (μF)	Size φDxL(mm)	Maximum permissible ripple current (mA r.m.s./105˚C, 100kHz)	Impedance (ΩMAX)	
			20˚C, 100kHz	-10˚C, 100kHz
47	5x11	150	0.90	3.6
100	6.3x11	250	0.40	1.6
220	8x11.5	400	0.25	1.0
330	8x11.5	400	0.25	1.0
470	10x12.5	580	0.16	0.65
1000	10x20	1050	0.078	0.30
2200	12.5x25	1650	0.048	0.16
3300	16x25	1850	0.034	0.096
4700	16x31.5	2000	0.029	0.087
6800	18x35.5	2200	0.025	0.058

Rated voltage 25V(1E)				
Nominal capacitance (μF)	Size φDxL(mm)	Maximum permissible ripple current (mA r.m.s./105˚C, 100kHz)	Impedance (ΩMAX)	
			20˚C, 100kHz	-10˚C, 100kHz
33	5x11	150	0.90	3.6
47	5x11	150	0.90	3.6
100	6.3x11	250	0.40	1.6
220	8x11.5	400	0.25	1.0
330	10x12.5	580	0.16	0.65
470	10x16	770	0.12	0.46
1000	12.5x20	1300	0.062	0.21
2200	16x25	1850	0.034	0.096
3300	16x31.5	2000	0.029	0.087
4700	18x35.5	2200	0.025	0.058

Rated voltage 35V(1V)				
Nominal capacitance (μF)	Nominal capacitance (μF)	Maximum permissible ripple current (mA r.m.s./105˚C, 100kHz)	Impedance (ΩMAX)	
			20˚C, 100kHz	-10˚C, 100kHz
33	5x11	150	0.90	3.6
47	6.3x11	250	0.40	1.6
100	8x11.5	400	0.25	1.0
220	10x12.5	580	0.16	0.65
330	10x16	770	0.12	0.46
470	10x20	1050	0.078	0.30
1000	12.5x25	1650	0.048	0.16
2200	16x31.5	2000	0.029	0.087
3300	18x35.5	2200	0.025	0.058

Rated voltage 50V(1H)				
Nominal capacitance (μF)	Size φDxL(mm)	Maximum permissible ripple current (mA r.m.s./105˚C, 100kHz)	Impedance (ΩMAX)	
			20˚C, 100kHz	-10˚C, 100kHz
0.47	5x11	17	5.5	12.0
1	5x11	30	4.0	8.0
2.2	5x11	43	2.5	6.0
3.3	5x11	53	2.2	5.6
4.7	5x11	88	1.9	5.0
10	5x11	100	1.5	4.0
22	5x11	150	0.90	3.6
33	6.3x11	250	0.40	1.6
47	6.3x11	250	0.40	1.6
100	8x11.5	400	0.25	1.0
220	10x16	770	0.12	0.46
330	10x20	1050	0.078	0.30
470	12.5x20	1300	0.062	0.21
1000	16x25	1850	0.034	0.096
2200	18x35.5	2200	0.025	0.058

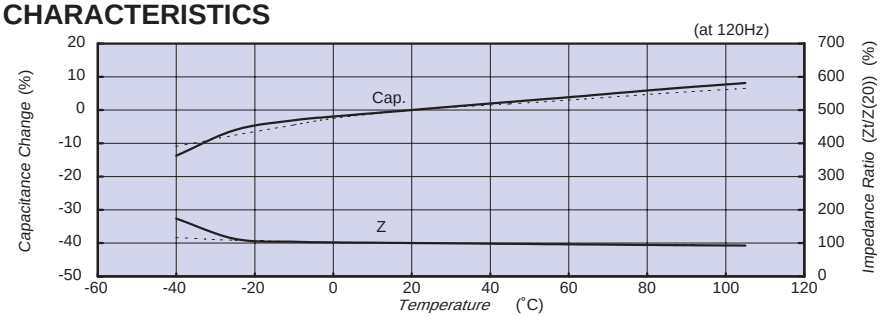
Rated voltage 63V(1J)				
Nominal capacitance (μF)	Size φDxL(mm)	Maximum permissible ripple current (mA r.m.s./105˚C, 100kHz)	Impedance (ΩMAX)	
			20˚C, 100kHz	-10˚C, 100kHz
10	5x11	87	2.3	9.3
22	6.3x11	140	1.3	5.2
33	6.3x11	140	1.2	5.0
47	8x11.5	210	0.63	2.8
100	10x12.5	300	0.43	1.8
220	10x20	520	0.21	0.84
330	12.5x20	660	0.16	0.64
470	12.5x25	750	0.12	0.45
1000	16x31.5	1390	0.054	0.20

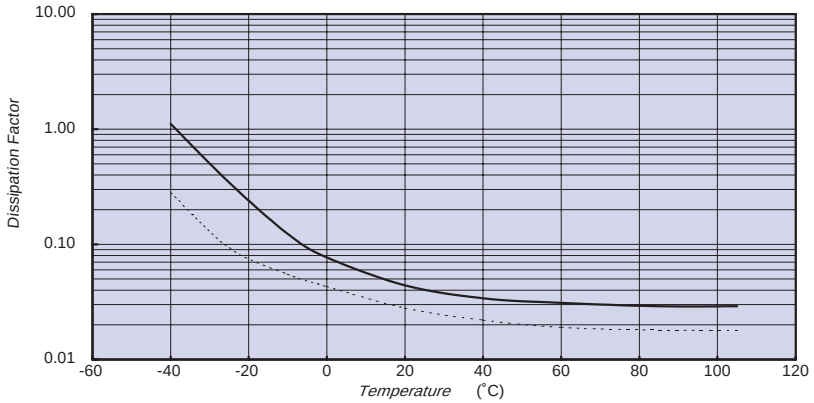
Rated voltage 100V(2A)				
Nominal capacitance (μF)	Size φDxL(mm)	Maximum permissible ripple current (mA r.m.s./105˚C, 100kHz)	Impedance (ΩMAX)	
			20˚C, 100kHz	-10˚C, 100kHz
0.47	5x11	15	6.0	17.0
1	5x11	20	4.5	15.0
2.2	5x11	30	3.0	13.0
3.3	5x11	40	2.7	11.0
4.7	5x11	65	2.5	10.0
10	6.3x11	140	1.2	5.0
22	8x11.5	160	0.63	2.8
33	10x12.5	230	0.43	1.8
47	10x16	290	0.31	1.5
100	12.5x20	430	0.16	0.64
220	16x25	900	0.073	0.27
330	16x25	900	0.073	0.27

♦CHARACTERISTIC DATA

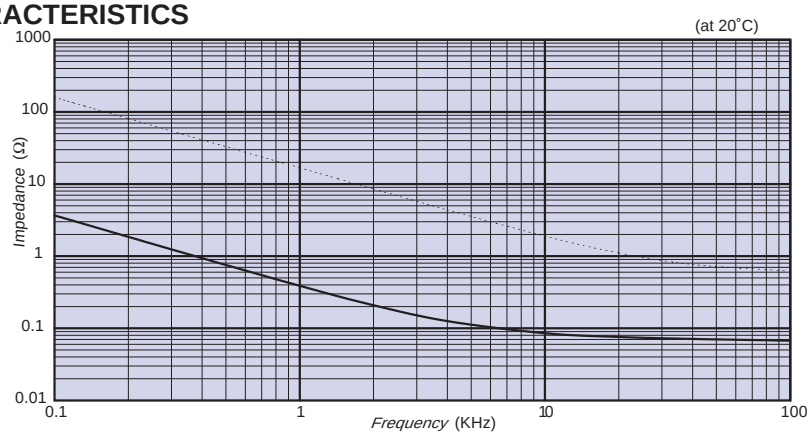
35 YXF 470 ϕ10x20L
50 YXF 10 ϕ5x11L

•TEMPERATURE CHARACTERISTICS

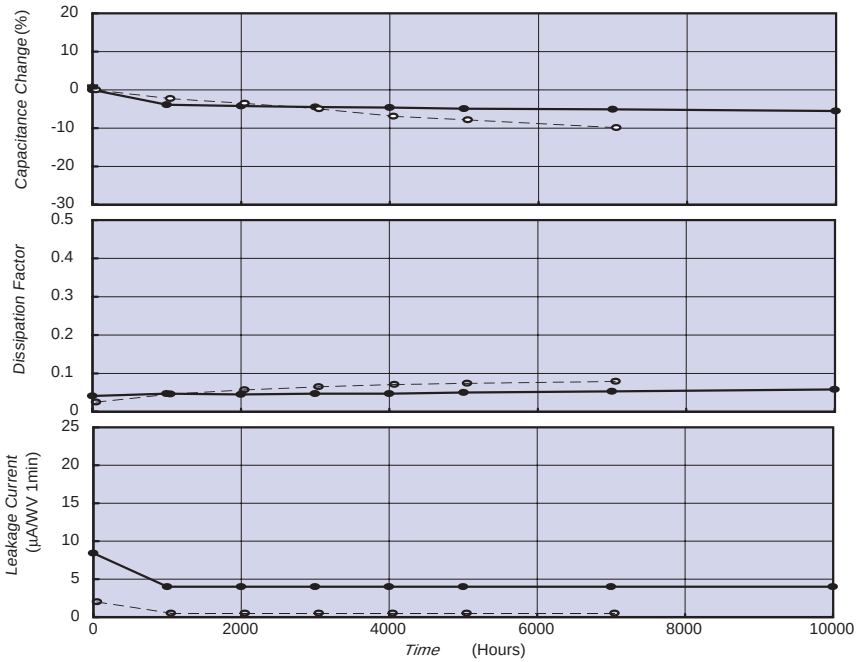




•FREQUENCY CHARACTERISTICS



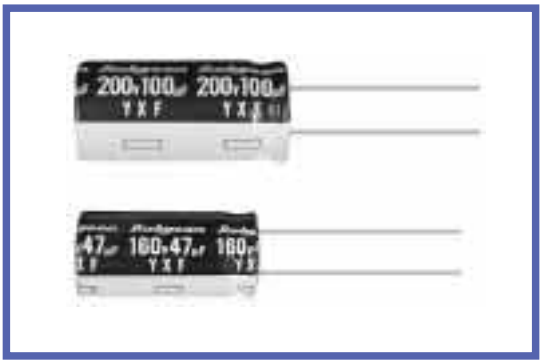
•LOAD LIFE



YXF SERIES

NEW

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



♦SPECIFICATIONS

Items	Characteristics
Operating 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=Nominal Capacitance(μF) V=Rated Voltage(V)
Dissipation Factor(MAX)	Rated Voltage(V) 160 200 250 tanδ 0.12 0.12 0.12 (20˚C,120Hz)
Load Life	After applying rated voltage with max 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 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

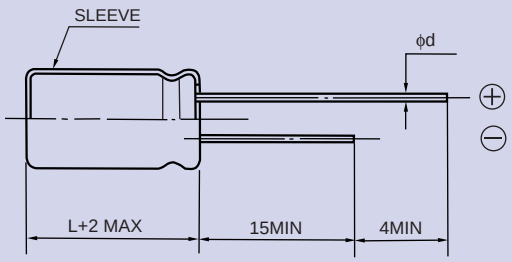
Frequency(Hz)	60(50)	120	1k	10k	100k≤
Coefficient	0.40	0.50	0.75	0.90	1.00

(2)Temperature coefficient

Ambient Temperature(˚C)	105	85	65≥
Coefficient	1.0	1.7	2.1

♦DIMENSIONS

(mm)



ϕD	10	12.5	16	18
ϕd	0.6		0.8	
F	5.0		7.5	

♦STANDARD SIZE

Rated voltage 160V(2C)			
Nominal capacitance(μF)	Size ϕDxL (mm)	Maximum permissible ripple current (mA r.m.s./105˚C, 100kHz)	Impedance(ΩMAX) 20˚C, 100kHz
22	10x20	350	1.0
33	12.5x20	450	0.70
47	12.5x25	600	0.45
100	16x25	950	0.24
220	18x35.5	1400	0.14

Rated voltage 200V(2D)			
Nominal capacitance (μF)	Size ϕDxL (mm)	Maximum permissible ripple current (mA r.m.s./105˚C, 100kHz)	Impedance(ΩMAX) 20˚C, 100kHz
22	10x20	350	1.0
33	12.5x25	550	0.55
47	12.5x25	600	0.44
100	16x31.5	1200	0.17
220	18x35.5	1400	0.14

Rated voltage 250V(2E)			
Nominal capacitance(μF)	Size ϕDxL (mm)	Maximum permissible ripple current (mA r.m.s./105˚C, 100kHz)	Impedance(ΩMAX) 20˚C, 100kHz
22	10x20	300	1.4
33	12.5x25	450	0.70
47	16x25	850	0.31
100	18x35.5	1200	0.18