

RN Non-polar Standard Series

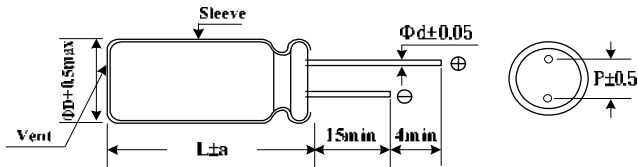


- Endurance: 85°C, 1000hours, Non-polarized/Polarity reversing
- Recommended Applications :Small crossover network, Reversed polarity circuit, Coupling
- Corresponding product to RoHS

■ SPECIFICATIONS

Item	Characteristics	
Category Temperature Range	-40 ~ +85°C	-25~+85°C
Rated Voltage Range	6.3~ 100VDC	160~250VDC
Rated Capacitance Range	1 ~ 6800 µF	1~100 µF
Capacitance Tolerance	± 20 % (120Hz , 20°C)	
Leakage Current (20°C)	I ≤ 0.03CV + 4 µ A ; L=7mm, I ≤ 0.05CV or 10 µ A whichever is greater. (After rated voltage applied for 2 minutes) I : Max. leakage current (µ A), C : Nominal capacitance (µ F), V : Rated voltage (V)	
Dissipation Factor(MAX) (tan δ) (120Hz ,20°C)	WV	6.3 10 16 25 35 50 63~100 160~250
	tan δ	0.24 0.2 0.17 0.15 0.15 0.15 0.12 0.20
When nominal capacitance is over 1000 µ F, tan δ shall be added 0.02 to the listed value with increase of every 1000 µ F.		
Low Temperature Stability Impedance Ratio (MAX)	WV	6.3 10 16 25 35 50 63~100 160~250
	Z(120Hz)	
	Z(-25°C) / Z(+20°C)	4 3 2 2 2 2 2 6
Z(-40°C) / Z(+20°C)	8 6 4 4 3 3 3 -	
Endurance	After applying rated voltage for 1000 hours at 85°C, the capacitors shall meet the following requirements. (The polarity shall be reversed every 250 hours)	
	Capacitance change	Within ± 20% of initial value
	D.F. (tan δ)	Not more than 200% of specified value
Leakage current	Not more than the specified value	
Shelf Life	After placed at 85°C without voltage applied for 500 hours, the capacitors shall meet the same requirements as load life.	

■ Dimensions [mm]



ΦD	4	5	6.3	8	10	13	16	18
P	1.5	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.45	0.5(0.45)	0.5(0.45)	0.6	0.6	0.6	0.8	0.8
a	1.0	1.5(1.0)	1.5(1.0)	1.5	1.5	2.0	2.0	2.0

() : L = 7

■ Multiplier for Ripple Current

WV(VDC)	Freq. (Hz)			
	50	120	1K	10K
6.3 ~ 16V	0.8	1.0	1.1	1.2
25 ~ 35V	0.8	1.0	1.5	1.7
50 ~ 100V	0.8	1.0	1.6	1.9
160 ~ 250V	0.8	1.0	1.5	1.6

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Rated Voltage (SurageVoltage) (V)	Cap (μF)	Case size ΦDxL(mm)	tan δ	Ripple current (mA/rms85°C) (120Hz)	Rated Voltage (SurageVoltage) (V)	Cap (μF)	Case size ΦDxL(mm)	tan δ	Ripple current (mA/rms85°C) (120Hz)
6.3(8)	22	5x7	0.24	35	35 (44)	4.7	5x7	0.15	25
	33	5x7	0.24	40			5x11	0.15	30
		5x11	0.24	60		10	5x11	0.15	40
	47	5x11	0.24	70			6.3x7	0.15	40
		6.3x7	0.24	50		22	6.3x11	0.15	70
	100	6.3x11	0.24	115			33	8x11	0.15
	220	8x11	0.24	205		47	8x11	0.15	120
	330	8x11	0.24	265		100	10x16	0.15	230
	470	10x12.5	0.24	370		220	13x20	0.15	410
	1000	10x20	0.24	650		330	13x20	0.15	505
	2200	13x25	0.26	1160		470	13x25	0.15	655
	3300	16x25	0.28	1570		1000	16x32	0.15	1140
	4700	16x32	0.30	2020		50 (63)	1	4x7	0.15
6800	18x36	0.34	2600	2.2	5x11			0.15	10
10(13)	10	4x7	0.20		25		3.3	4x7	0.15
	22	5x7	0.20	40	5x11			0.15	20
		33	5x11	0.20	50		4.7	5x7	0.15
	5x11		0.20	65	5x11			0.15	30
	47	6.3x7	0.20	50	10		6.3x7	0.15	30
		5x11	0.20	75			5x11	0.15	30
	100	6.3x7	0.20	60	10		6.3x11	0.15	45
		6.3x11	0.20	125	22		8x11	0.15	80
	220	8x11	0.20	215	33		8x11	0.15	105
	330	10x16	0.20	345	47		8x15	0.15	140
	470	10x16	0.20	410	100		10x20	0.15	265
	1000	13x20	0.20	720	220		13x25	0.15	480
	2200	16x25	0.22	1280	330		16x25	0.15	650
3300	16x32	0.24	1690	470	16x32		0.15	835	
4700	18x36	0.26	2160	63 (79)	10		6.3x11	0.12	55
16 (20)	4.7	4x7	0.17		20	22	8x11	0.12	90
	10	5x7	0.17		30	33	10x12.5	0.12	135
		5x11	0.17		40	47	10x16	0.12	180
	22	5x11	0.17		55	100	13x20	0.12	320
		6.3x7	0.17		45	220	16x25	0.12	575
	33	5x11	0.17		70	330	16x32	0.12	750
		6.3x7	0.17		60	470	18x36	0.12	965
	47	6.3x7	0.17	70	80 (100)	10	8x11	0.12	65
		6.3x11	0.17	95		22	10x16	0.12	105
	100	8x11	0.17	160		33	10x16	0.12	160
	220	10x12.5	0.17	275		47	10x20	0.12	215
	330	10x16	0.17	375		100	13x25	0.12	385
	470	10x20	0.17	485		220	16x32	0.12	690
1000	13x25	0.17	855	330	18x36	0.12	860		
2200	16x32	0.19	1510	100 (125)	10	8x11	0.12	70	
3300	18x36	0.21	1980		22	10x16	0.12	135	
25 (32)	3.3	4x7	0.15		15	33	13x20	0.12	220
	4.7	5x7	0.15		20	47	13x20	0.12	240
		5x11	0.15		40	100	16x25	0.12	425
	10	6.3x7	0.15	35	220	18x36	0.12	720	
		6.3x7	0.15	50	160 (200)	1	6.3x11	0.20	15
	22	6.3x11	0.15	65		2.2	8x11	0.20	20
		6.3x7	0.15	65		3.3	10x12.5	0.20	30
	33	6.3x11	0.15	80		4.7	10x12.5	0.20	35
		6.3x11	0.15	95		10	10x16	0.20	55
	100	8x11	0.15	160		22	13x25	0.20	105
	220	10x16	0.15	305		33	16x25	0.20	165
	330	13x20	0.15	450		47	16x26	0.20	200
	470	13x20	0.15	540		100	18x36	0.20	360
1000	16x25	0.15	950	200 (250)		1	6.3x11	0.20	15
2200	18x36	0.17	1620		2.2	8x11	0.20	20	
35 (44)	2.2	4x7	0.15		15	3.3	10x12.5	0.20	30
	3.3	5x7	0.15		20	4.7	10x16	0.20	40

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Rated Voltage (SurageVoltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	$\tan \delta$	Ripple current (mA/rms85°C) (120Hz)	Rated Voltage (SurageVoltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	$\tan \delta$	Ripple current (mA/rms85°C) (120Hz)
200 (250)	10	13x20	0.20	70	250 (300)	3.3	10x12.5	0.20	30
	22	13x25	0.20	120		4.7	10x16	0.20	40
	33	16x25	0.20	165		10	13x20	0.20	70
	47	16x32	0.20	220		22	16x25	0.20	135
250 (300)	1	8x11	0.20	15		33	16x32	0.20	180
	2.2	10x12.5	0.20	25		47	16x36	0.20	230