

SN

Non-polar Standard Series

- Endurance: 105°C 1000 hours
- Recommended Applications : Non-polar miniature type for used in reversing polarity DC voltage circuits
- Corresponding product to RoHS

SN
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RN

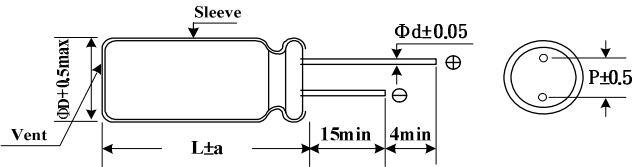
Higher temperature



■ SPECIFICATIONS

Item	Characteristics	
Category Temperature Range	-40 ~ +105°C	-25~+105°C
Rated Voltage Range	6.3 ~ 100VDC	160~250VDC
Rated Capacitance Range	1 ~ 2200 µF	1~100 µF
Capacitance Tolerance	± 20 % (120Hz , 20°C)	
Leakage Current (20°C)	I=0.03CV+ 3 µ A; L=7mm, I=0.06CV+ 10 µ A(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 80 100 160~250
	tan δ	0.24 0.20 0.17 0.15 0.15 0.15 0.12 0.12 0.12 0.20
When nominal capacitance is over 1000uF , tan δ shall be added 0.02 to the listed value with increase of every 1000uF;L=7mm, tan δ shall be added 0.03		
Low Temperature Stability Impedance Ratio (MAX)	WV	6.3 10 16 25 35 50 63~100 160-250
	Z(120Hz)	4 3 2 2 2 2 2 2 6
	Z-25°C / Z+20°C	10 8 6 4 3 3 3 —
Endurance	After applying rated voltage for 1000 hours at 105°C,(The polarity shall be reversed every 250 hrs.)	
	Capacitance change	Within ± 25% of initial value
	D.F. (tan δ)	Not more than 200% of specified value
Shelf Life	After placed at 105°C without voltage applied for 500 hours,the capacitors shall meet the same requirement as Endurance.	

■ Dimensions [mm]



ΦD	4.0	5.0	6.3	8.0	10.0	13.0	16.0	18.0
P	1.5	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.45	0.5	0.5	0.6	0.6	0.6	0.8	0.8
a	1.0	1.5	1.5	1.5	1.5	2.0	2.0	2.0

■ Multiplier for Ripple Current

Freq. (Hz)	60	120	300	1K	10K
Factor	0.75	1.00	1.20	1.32	1.65

■ STANDARD RATINGS

Rated Voltage (SurageVoltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	$\tan \delta$	R.C (mA/rms105°C) (120Hz)	Rated Voltage (SurageVoltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	$\tan \delta$	R.C (mA/rms105°C) (120Hz)
6.3(8)	33	5x11	0.24	63	50(63)	22	6.3x11	0.15	75
	47	6.3x11	0.24	84			8x11	0.15	97
	100	8x11	0.24	140			10x12.5	0.15	115
	220	10x12.5	0.24	235		33	8x11	0.15	110
	330	10x16	0.24	310			10x16	0.15	150
	470	10x20	0.24	400		47	8x11	0.15	130
	1000	13x25	0.24	690			10x20	0.15	190
	2200	16x32	0.26	1250		100	13x20	0.15	310
10(13)	22	5x11	0.20	57		220	16x25	0.15	570
	33	6.3x11	0.20	77		330	16x36	0.15	790
	47	6.3x11	0.20	93	63(79)	10	8x11	0.12	74
	100	8x11	0.20	193		22	8x11	0.12	95
	220	10x16	0.20	255			10x16	0.12	130
	330	10x20	0.20	380		33	8x11	0.12	115
	470	13x20	0.20	470			10x20	0.12	175
	1000	16x25	0.20	885		47	13x20	0.12	230
2200	16x36	0.22	1450	100		16x25	0.12	410	
16(20)	10	6.3x11	0.17	45		220	16x32	0.12	660
	22	5x11	0.17	59	80(100)	10	10x12.5	0.12	88
		6.3x11	0.17	69		22	10x20	0.12	150
	33	8x11	0.17	98		33	13x20	0.12	205
	47	8x11	0.17	115		47	13x20	0.12	245
	100	8x11	0.17	140	100	16x25	0.12	435	
		10x12.5	0.17	175	100(125)	10	8x11	0.12	80
		10x16	0.17	205		22	10x12.5	0.12	100
		220	10x20	0.17		330	33	13x20	0.12
	330	13x20	0.17	445		47	13x20	0.12	220
470	13x25	0.17	570	100		13x25	0.12	285	
1000	16x32	0.17	1020	100		16x32	0.12	510	
25(32)	10	5x11	0.15	42	160(200)	1	6.3x11	0.20	21
		6.3x11	0.15	50		2.2	8x11	0.20	34
	22	6.3x11	0.15	69		3.3	10x12.5	0.20	49
		8x11	0.15	86		4.7	10x12.5	0.20	58
	33	8x11	0.15	105		10	10x17	0.20	80
	47	10x12.5	0.15	140		22	13x25	0.20	180
	100	10x20	0.15	240		33	16x26	0.20	220
	220	13x20	0.15	390		47	16x26	0.20	285
	330	16x25	0.15	580		100	18x36	0.20	510
470	16x25	0.15	690	200(250)	1	6.3x11	0.20	21	
35(44)	4.7	5x11	0.15		34	2.2	8x11	0.20	34
	10	6.3x11	0.15		54	3.3	10x12.5	0.20	49
	22	8x11	0.15		94	4.7	10x15	0.20	62
	33	10x12.5	0.15		125	10	13x20	0.20	100
	47	10x16	0.15		165	22	13x25	0.20	180
	100	13x20	0.15		285	33	16x26	0.20	220
	220	16x25	0.15		520	47	16x32	0.20	315
	330	16x25	0.15	630	250(300)	1	8x11	0.20	25
470	16x32	0.15	820	2.2		10x12.5	0.20	38	
50(63)	2.2	5x11	0.15	25		3.3	10x12.5	0.20	49
	3.3	6.3x11	0.15	31		4.7	10x17	0.20	66
	4.7	5x11	0.15	34		10	13x20	0.20	100
		6.3x11	0.15	41		22	16x26	0.20	200
	10	6.3x11	0.15	56		33	16x32	0.20	250
		8x11	0.15	70		47	16x36	0.20	330