

LGN Series

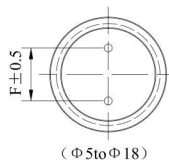
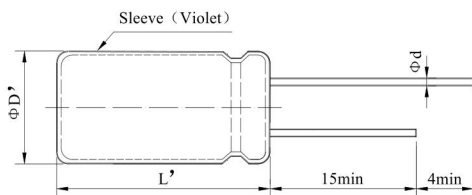
- Life time: +130°C 1000 to 2000 hours, +105°C 8000 to 12000 hours
- Withstand high temperature +130°C, Miniaturized, Long life
- Suitable for output circuit and input circuit of LED driving power
- Sleeve color is Black
- RoHs Compliant



SPECIFICATIONS

Items	Characteristics																									
Category	-40°C to +130°C(160 to 400Vdc) -25°C to +130°C(450Vdc) -25°C to +105°C(500Vdc)																									
Temperature Range																										
Rated Voltage Range	160 to 500Vdc																									
Capacitance Tolerance	± 20%(M) (at 20°C, 120Hz)																									
Leakage Current	160 to 400Vdc : $I \leq 0.02CV + 10\mu A$ 450 to 500Vdc : $I \leq 0.03CV + 10\mu A$ Where, I: Max. leakage current (μA), C: Nominal capacitance (μF), V: Rated voltage(V) (at 20°C after 2 minutes)																									
Dissipation Factor (tan δ)	<table border="1"> <thead> <tr> <th>Rated Voltage (Vdc)</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> <th>500</th> </tr> </thead> <tbody> <tr> <td>tanδ(Max.)</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.24</td> </tr> </tbody> </table> <p style="text-align: right;">(at 20°C, 120Hz)</p>	Rated Voltage (Vdc)	160	200	250	350	400	450	500	tanδ(Max.)	0.15	0.15	0.15	0.20	0.20	0.20	0.24									
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Low Temperature Characteristics (Max. Impedance Ratio)	<table border="1"> <thead> <tr> <th>Rated Voltage (Vdc)</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> <th>500</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(+20°C)</td> <td>3</td> <td>3</td> <td>3</td> <td>5</td> <td>5</td> <td>6</td> <td>6</td> </tr> <tr> <td>Z(-40°C)/Z(+20°C)</td> <td>6</td> <td>6</td> <td>6</td> <td>6</td> <td>6</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p style="text-align: right;">(at 120Hz)</p>	Rated Voltage (Vdc)	160	200	250	350	400	450	500	Z(-25°C)/Z(+20°C)	3	3	3	5	5	6	6	Z(-40°C)/Z(+20°C)	6	6	6	6	6	-	-	
Rated Voltage (Vdc)	160	200	250	350	400	450	500																			
Z(-25°C)/Z(+20°C)	3	3	3	5	5	6	6																			
Z(-40°C)/Z(+20°C)	6	6	6	6	6	-	-																			
Endurance	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for the specified period of time at 130°C or at 105°C.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>$\leq \pm 20\%$ of the initial value.</td> </tr> <tr> <td>D.F. (tan δ)</td> <td>$\leq 200\%$ of the initial specified value.</td> </tr> <tr> <td>Leakage current</td> <td>\leq The initial specified value.</td> </tr> </table> <table border="1"> <thead> <tr> <th rowspan="2">Case Dia</th> <th colspan="2">130°C Lifetime (hours)</th> <th colspan="2">105°C Lifetime (hours)</th> </tr> <tr> <th>160 to 450WV</th> <th>160 to 450WV</th> <th>500WV</th> <th></th> </tr> </thead> <tbody> <tr> <td>φD=6.3</td> <td>1000</td> <td>8000</td> <td>-</td> <td></td> </tr> <tr> <td>φD≥8</td> <td>2000</td> <td>12000</td> <td>10000</td> <td></td> </tr> </tbody> </table>	Capacitance change	$\leq \pm 20\%$ of the initial value.	D.F. (tan δ)	$\leq 200\%$ of the initial specified value.	Leakage current	\leq The initial specified value.	Case Dia	130°C Lifetime (hours)		105°C Lifetime (hours)		160 to 450WV	160 to 450WV	500WV		φD=6.3	1000	8000	-		φD≥8	2000	12000	10000	
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φD=6.3	1000	8000	-																							
φD≥8	2000	12000	10000																							
Shelf Life	<p>The following specifications shall be satisfied when the capacitors performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C after exposing them for 1000hours at 105°C without voltage applied.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>$\leq \pm 20\%$ of the initial value.</td> </tr> <tr> <td>D.F. (tan δ)</td> <td>$\leq 200\%$ of the initial specified value.</td> </tr> <tr> <td>Leakage current</td> <td>\leq The initial specified value.</td> </tr> </table>	Capacitance change	$\leq \pm 20\%$ of the initial value.	D.F. (tan δ)	$\leq 200\%$ of the initial specified value.	Leakage current	\leq The initial specified value.																			
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DIMENSIONS[mm]



ΦD	5	6.3	8	10	12.5	16	18	
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8	
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	
ΦD'							ΦD+0.5max.	
L'							L+2.0max.	

RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Freq.(Hz)	120	1k	10k	100k
Cap. < 33	0.40	0.70	0.90	1.00
Cap. ≥ 33	0.50	0.80	0.90	1.00

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◆ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size ΦD×L(mm)	tan δ	Ripple current mArms/105℃, 100kHz	Ripple current mArms/30℃, 100kHz
160(2C)	1	6.3×9	0.15	45	30
	1	6.3×11	0.15	50	34
	1.5	6.3×9	0.15	50	34
	1.5	6.3×11	0.15	55	36
	1.8	6.3×9	0.15	58	38
	1.8	6.3×11	0.15	64	42
	2.2	6.3×9	0.15	64	42
	2.2	6.3×11	0.15	70	46
	2.8	6.3×9	0.15	68	45
	2.8	6.3×11	0.15	75	49
	3.3	6.3×9	0.15	72	47
	3.3	6.3×11	0.15	80	52
	4.7	6.3×9	0.15	82	54
	4.7	6.3×11	0.15	86	56
	5.6	8×9	0.15	88	58
	5.6	8×12	0.15	98	64
	6.8	8×9	0.15	100	65
	6.8	8×16	0.15	110	72
	10	8×16	0.15	225	146
	10	10×9	0.15	200	130
15	8×16	0.15	288	188	
22	10×16	0.15	475	309	
33	10×20	0.15	570	372	
47	12.5×25	0.15	660	429	
68	12.5×25	0.15	880	520	
100	16×25	0.15	1120	728	
150	16×30	0.15	1280	832	
200(2D)	1	6.3×9	0.15	52	40
	1	6.3×11	0.15	56	42
	1.5	6.3×9	0.15	56	42
	1.5	6.3×11	0.15	60	45
	1.8	6.3×9	0.15	60	45
	1.8	6.3×11	0.15	68	50
	2.2	6.3×9	0.15	68	50
	2.2	6.3×11	0.15	74	55
	2.8	6.3×9	0.15	74	55
	2.8	6.3×11	0.15	80	60
	3.3	6.3×9	0.15	86	65
	3.3	6.3×11	0.15	96	72
	4.7	6.3×11	0.15	128	102
	4.7	8×9	0.15	135	107
	4.7	8×12	0.15	154	122
	5.6	8×9	0.15	150	120
	5.6	8×12	0.15	165	132
	5.6	8×16	0.15	220	176
	6.8	8×9	0.15	158	125
	6.8	8×12	0.15	175	140
	6.8	8×16	0.15	228	182
	8.2	10×9	0.15	210	160
	10	8×16	0.15	290	202
	10	8×20	0.15	330	230
	10	10×9	0.15	280	195
	15	8×16	0.15	338	235
	15	8×20	0.15	350	240

WV (Vdc)	Cap (μF)	Case size ΦD×L(mm)	tan δ	Ripple current mArms/105℃, 100kHz	Ripple current mArms/30℃, 100kHz	
200(2D)	22	8×20	0.15	382	248	
	22	10×16	0.15	446	290	
	22	10×20	0.15	492	320	
	33	10×20	0.15	570	370	
	33	12.5×16	0.15	570	370	
	33	12.5×20	0.15	600	390	
	47	12.5×16	0.15	600	390	
	47	12.5×20	0.15	628	408	
	47	12.5×25	0.15	660	430	
	68	16×25	0.15	860	560	
	100	12.5×30	0.15	882	574	
	100	16×25	0.15	1060	690	
	150	12.5×40	0.15	1120	728	
	150	16×35	0.15	1290	840	
	250(2E)	1	6.3×9	0.15	52	40
		1	6.3×11	0.15	56	42
1.5		6.3×9	0.15	56	42	
1.5		6.3×11	0.15	60	45	
1.8		6.3×9	0.15	60	45	
1.8		6.3×11	0.15	68	50	
2.2		6.3×9	0.15	68	50	
2.2		6.3×11	0.15	74	55	
2.8		6.3×9	0.15	74	55	
2.8		6.3×11	0.15	84	62	
3.3		6.3×9	0.15	86	65	
3.3		6.3×11	0.15	100	74	
4.7		8×9	0.15	120	95	
4.7		8×12	0.15	154	122	
5.6		8×9	0.15	150	120	
5.6		8×12	0.15	165	132	
6.8		8×9	0.15	158	125	
6.8		8×16	0.15	228	182	
8.2		8×16	0.15	274	192	
8.2		10×9	0.15	235	165	
10	8×16	0.15	294	205		
15	8×20	0.15	378	245		
22	10×16	0.15	462	300		
33	12.5×16	0.15	550	358		
33	12.5×20	0.15	610	398		
47	12.5×16	0.15	610	398		
47	12.5×20	0.15	648	420		
68	12.5×30	0.15	874	568		
68	16×25	0.15	874	568		
100	12.5×35	0.15	966	628		
100	16×30	0.15	1140	740		
150	12.5×50	0.15	1288	838		
150	16×35	0.15	1400	910		
350(2V)	1	6.3×9	0.20	52	40	
	1	6.3×11	0.20	58	44	
	1.5	6.3×11	0.20	65	50	
	1.5	8×9	0.20	68	52	
	1.8	6.3×11	0.20	70	54	
	1.8	8×9	0.20	74	57	
	2.2	6.3×11	0.20	78	60	

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WV (Vdc)	Cap (μF)	Case size ΦD×L(mm)	tan δ	Ripple current mArms/105℃, 100kHz	Ripple current mArms/30℃, 100kHz
350(2V)	2.2	8×9	0.20	82	63
	2.8	8×12	0.20	90	68
	2.8	10×9	0.20	95	72
	3.3	8×12	0.20	100	75
	3.3	10×9	0.20	105	78
	4.7	8×12	0.20	135	108
	5.6	8×16	0.20	160	125
	6.8	8×20	0.20	195	142
	8.2	8×20	0.20	250	164
	10	10×20	0.20	300	195
	15	10×20	0.20	380	247
	22	12.5×20	0.20	476	309
	33	16×20	0.20	600	390
	47	16×20	0.20	740	480
	68	18×25	0.20	880	572
100	18×30	0.20	1160	754	
400(2G)	1	6.3×9	0.20	62	55
	1	6.3×11	0.20	66	60
	1	8×12	0.20	72	66
	1.2	6.3×11	0.20	68	62
	1.5	8×9	0.20	75	68
	1.5	8×12	0.20	86	75
	1.5	8×16	0.20	92	80
	1.8	8×9	0.20	80	70
	1.8	8×12	0.20	90	78
	1.8	8×16	0.20	104	88
	2.2	6.3×11	0.20	85	72
	2.2	8×12	0.20	92	80
	2.2	8×16	0.20	110	94
	2.8	8×16	0.20	120	96
	2.8	8×20	0.20	148	118
	3.3	8×12	0.20	120	96
	3.3	8×16	0.20	128	102
	3.3	8×20	0.20	152	122
	4.7	8×12	0.20	148	110
	4.7	8×20	0.20	168	125
	5.6	8×20	0.20	175	133
	5.6	10×16	0.20	180	135
	5.6	10×20	0.20	200	140
	6.8	8×20	0.20	202	142
	6.8	10×16	0.20	210	148
	6.8	10×20	0.20	220	154
	8.2	10×16	0.20	252	164
	8.2	10×20	0.20	266	174
	10	10×16	0.20	288	187
	10	10×20	0.20	304	198
	15	8×40	0.20	340	220
	15	12.5×16	0.20	360	234
	15	12.5×20	0.20	400	260
	22	12.5×25	0.20	532	346
	33	10×45	0.20	627	408
33	16×25	0.20	608	395	
47	12.5×40	0.20	660	429	
47	18×25	0.20	792	515	

WV (Vdc)	Cap (μF)	Case size ΦD×L(mm)	tan δ	Ripple current mArms/105℃, 100kHz	Ripple current mArms/30℃, 100kHz
400(2G)	68	12.5×55	0.20	870	566
	68	18×30	0.20	900	585
	100	18×40	0.20	1180	766
450(2W)	1	8×9	0.20	64	56
	1	8×12	0.20	68	62
	1.5	8×12	0.20	84	74
	1.5	10×9	0.20	90	76
	1.8	8×12	0.20	90	76
	1.8	10×9	0.20	95	80
	2.2	8×16	0.20	92	78
	2.8	8×16	0.20	120	96
	3.3	8×16	0.20	125	100
	4.7	8×20	0.20	168	125
	5.6	10×16	0.20	180	135
	6.8	10×20	0.20	220	154
	8.2	10×20	0.20	266	174
	10	10×25	0.20	304	198
	10	12.5×16	0.20	290	188
	15	8×45	0.20	400	260
	15	12.5×20	0.20	400	260
	22	10×40	0.20	500	325
	22	16×20	0.20	500	325
	33	10×50	0.20	615	400
33	16×25	0.20	665	432	
47	12.5×45	0.20	720	468	
47	16×35	0.20	818	532	
68	18×30	0.20	900	585	
100	18×40	0.20	1180	768	
500(2H)	10	12.5×20	0.24	288	—
	10	12.5×25	0.24	302	—
	15	12.5×25	0.24	396	—
	15	16×20	0.24	396	—
	22	16×25	0.24	504	—
	33	18×25	0.24	630	—
	47	18×30	0.24	792	—