

RG Series

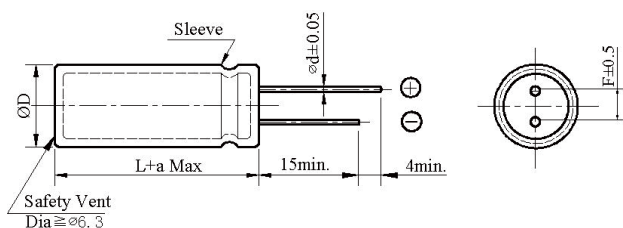
- Long life, better performance
- Load life 8,000~10,000 hours at 105°C; 2,000 hours at 130°C
- RoHS Compliant



◆ SPECIFICATIONS

Item	Performance Characteristics																								
Category Temperature Range	-40 ~ +105°C																								
Working Voltage Range	160 ~ 500Vdc																								
Capacitance Range	1 ~ 330μF																								
Capacitance Tolerance	±20% (at 20°C and 120Hz)																								
Dissipation Factor (tanδ) (at 20°C, 120Hz)	<table border="1"> <tr> <td>Rated Voltage (V)</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> <td>500</td> </tr> <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> </table>	Rated Voltage (V)	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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Leakage Current	<table border="1"> <tr> <td>160~400Vdc</td> <td>450~500Vdc</td> </tr> <tr> <td>$I \leq 0.02CV + 10\mu A$ (2minutes)</td> <td>$I \leq 0.03CV + 10\mu A$ (2minutes)</td> </tr> </table>	160~400Vdc	450~500Vdc	$I \leq 0.02CV + 10\mu A$ (2minutes)	$I \leq 0.03CV + 10\mu A$ (2minutes)																				
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Low Temperature Characteristics Impedance Ratio(MAX)	I: Leakage current (μA) C: Rated capacitance (μF) V: Rated voltage (V)																								
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	Rated Voltage (V)	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	9	15																		
(at 120Hz)																									
Endurance	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 8,000 to 10,000 hours at 105°C (For 2,000 hours at 130°C 160WV to 450WV)																								
	<table border="1"> <tr> <td>Capacitance change</td> <td>$\cong \pm 20\%$ of the initial value</td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>$\cong 200\%$ of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>\cong specified value</td> </tr> </table>	Capacitance change	$\cong \pm 20\%$ of the initial value	Dissipation factor(tanδ)	$\cong 200\%$ of the specified value	Leakage current	\cong specified value																		
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Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 20°C after the rated voltage applied for 1,000 hours at 105°C without voltage applied.																								
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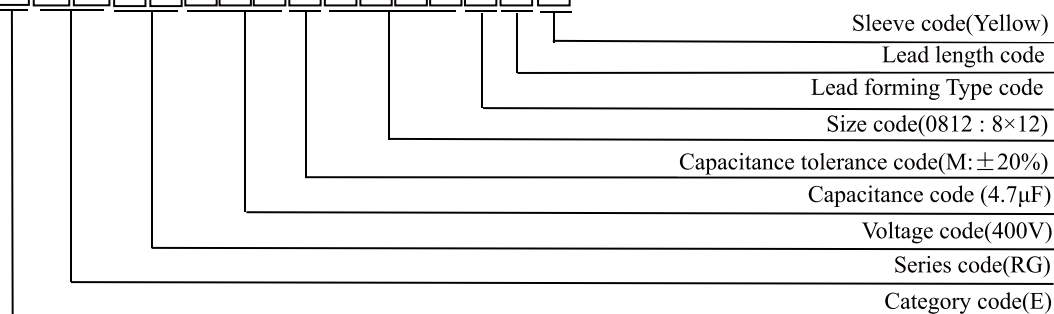
◆ DIMENSIONS (mm)



ΦD	5	6.3	8	10	12.5	16	18
ΦD	ΦD +0.5 Max						
Φd	0.5	0.5	0.5/0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
a	L+2.0 Max						

◆ PART NUMBER SYSTEM(Example : 400V 4.7μF)

E R G 2 G 4 R 7 M 0 8 1 2 0 0 Y



RG Series

◆ Case size & Permissible rated ripple current: (mArms) at 100KHz

Vdc μF	160			200			250			350		
	ΦD × L	RC 105°C	RC 130°C	ΦD × L	RC 105°C	RC 130°C	ΦD × L	RC 105°C	RC 130°C	ΦD × L	RC 105°C	RC 130°C
1.0	6.3×9	45	30	6.3×9	52	40	6.3×9	52	40	6.3×9	55	41
1.5	6.3×9	50	34	6.3×9	56	42	6.3×9	56	42	6.3×9	65	49
1.8	6.3×9	55	36	6.3×9	59	46	6.3×9	68	54	6.3×9	72	52
2.2	6.3×9	64	42	6.3×9	74	55	6.3×9	86	67	6.3×12	78	60
2.8	6.3×9	68	44	6.3×9	84	64	6.3×9	94	74	8×9	88	66
3.3	6.3×9	72	47	6.3×12	96	72	6.3×12	105	83	8×9	95	71
4.7	6.3×9	76	49	6.3×12	128	102	8×12	154	122	8×12	135	108
5.6	8×9	88	58	8×9	150	120	8×12	165	132	8×12	140	109
6.8	8×9	100	65	8×9	158	125	8×12	216	162	8×16	170	123
8.2	8×9	140	95	8×12	195	150	8×12	245	180	8×20	250	164
10	8×9	170	110	8×12	240	168	8×16	294	205	10×16	275	178
15	8×9	230	150	8×16	338	235	8×16	340	221	10×20	380	247
22	8×12	340	221	10×16	446	290	10×16	462	300	12.5×20	476	309
33	10×16	520	340	10×20	570	370	12.5×16	585	386	12.5×20	600	390
47	10×16	570	371	12.5×20	628	408	12.5×20	648	420	16×20	740	480
68	12.5×16	680	442	12.5×25	760	494	16×20	830	540	18×25	880	572
100	12.5×20	1100	715	16×20	1060	690	16×25	1030	668	18×25	950	620
150	16×20	1200	780	16×25	1150	885	18×25	1330	865			
220	16×25	1400	910	16×30	1320	1000						
330	18×30	1655	1075									

Vdc μF	400			450			500		
	ΦD × L	RC 105°C	RC 130°C	ΦD × L	RC 105°C	RC 130°C	ΦD × L	RC 105°C	RC 130°C
1.0	6.3×9	65	59	6.3×9	66	60			
1.5	6.3×12	75	68	8×12	84	74			
1.8	8×9	78	70	8×12	87	75	8×16	72	/
2.2	8×9	87	71	8×12	90	77	8×16	83	/
2.8	8×9	95	75	8×16	100	80	8×20	88	/
3.3	8×12	120	96	8×16	125	100	8×20	120	/
4.7	8×12	148	110	8×20	168	125	10×16	145	/
5.6	8×20	155	117	10×16	180	135	10×20	170	/
6.8	10×16	210	148	10×16	200	140	10×20	190	/
8.2	10×16	252	164	10×16	235	153	10×20	260	/
10	10×16	288	187	10×25	300	192	12.5×20	288	/
15	12.5×16	400	260	12.5×20	410	270	12.5×25	396	/
22	12.5×20	490	318	12.5×25	500	325	16×20	505	/
33	16×20	560	364	16×25	670	447	18×25	630	/
47	16×25	700	455	16×30	818	532	18×30	792	/
68	18×25	835	543	18×30	900	585	18×35	1060	/
100	18×30	1090	708	18×35	1110	722			

◆ RIPPLE CURRENT MULTIPLIERS
Frequency Multipliers

Vdc	Frequency (Hz)				
	50	120	1K	10K	100K
160 ~ 500	0.45	0.50	0.80	0.90	1.00