

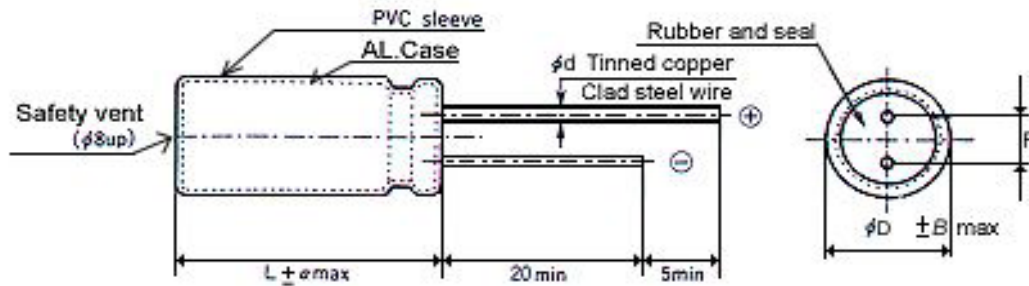
GR Series For General Purpose



項目 Item	特性 Characteristics																																											
使用溫度範圍 Operating Temperature Range	- 40 ~ 105°C	-25 ~ 105°C																																										
額定電壓範圍 Rated Working Voltage Range	10V ~ 100V DC	160V ~ 450V DC																																										
靜電容量容許差 Capacitance Tolerance (120Hz, 25°C)	±20% (M)																																											
洩漏電流 Leakage Current (25°C)	10V ~ 100V DC	160V ~ 450V DC																																										
	$I \leq 0.02CV + 3 (\mu A)$	$I \leq 0.03CV + 40 (\mu A)$																																										
I : Leakage Current (μA) C : Rated Capacitance (μF) V : Working Voltage (V) After 5 minutes applying the DC working Voltage																																												
突波電壓 Surge Voltage (25°C)	<table border="1"> <tr> <td>W.V.</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>S.V.</td> <td>13</td> <td>20</td> <td>32</td> <td>44</td> <td>63</td> <td>79</td> <td>125</td> <td>200</td> <td>250</td> <td>300</td> <td>400</td> <td>450</td> <td>500</td> </tr> </table>		W.V.	10	16	25	35	50	63	100	160	200	250	350	400	450	S.V.	13	20	32	44	63	79	125	200	250	300	400	450	500														
W.V.	10	16	25	35	50	63	100	160	200	250	350	400	450																															
S.V.	13	20	32	44	63	79	125	200	250	300	400	450	500																															
散逸因素 (Tan. θ) Dissipation Factor (120Hz, 25°C)	<table border="1"> <tr> <td>W.V.</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>Tan. θ</td> <td>0.20</td> <td>0.17</td> <td>0.15</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.24</td> <td>0.24</td> </tr> </table> <p>For capacitance exceeding 1000 μF, add 0.02 per increment of 1000 μF</p>		W.V.	10	16	25	35	50	63	100	160	200	250	350	400	450	Tan. θ	0.20	0.17	0.15	0.12	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.24	0.24														
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Tan. θ	0.20	0.17	0.15	0.12	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.24	0.24																															
溫度特性 Temperature Characteristics	<table border="1"> <tr> <td>W.V.</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>-25°C /+25°C</td> <td>4</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>8</td> <td>8</td> <td>8</td> <td>12</td> <td>16</td> <td>16</td> </tr> <tr> <td>-40°C /+25</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>6</td> <td>8</td> <td>10</td> <td>-</td> <td>-</td> <td>-</td> </tr> </table> <p>Impedance ratio at 120HZ</p>		W.V.	10	16	25	35	50	63	100	160	200	250	350	400	450	-25°C /+25°C	4	3	3	2	2	2	2	8	8	8	12	16	16	-40°C /+25	8	6	4	3	3	3	3	6	8	10	-	-	-
W.V.	10	16	25	35	50	63	100	160	200	250	350	400	450																															
-25°C /+25°C	4	3	3	2	2	2	2	8	8	8	12	16	16																															
-40°C /+25	8	6	4	3	3	3	3	6	8	10	-	-	-																															
高溫負荷特性 Load Test	<p>After 2000 hours application of W.V. at +105°C the capacitor shall meet he following limits</p> <table border="1"> <tr> <td>Capacitance change</td> <td>$\leq \pm 20\%$ of initial value</td> </tr> <tr> <td>Tan. θ</td> <td>$\leq \pm 150\%$ of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>\leq initial specified value</td> </tr> </table>		Capacitance change	$\leq \pm 20\%$ of initial value	Tan. θ	$\leq \pm 150\%$ of initial specified value	Leakage current	\leq initial specified value																																				
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放置特性 Shelf Test	<p>After 1000 hours application of W.V. at +105°C the capacitor shall meet he following limits</p> <table border="1"> <tr> <td>Capacitance change</td> <td>$\leq \pm 20\%$ of initial value</td> </tr> <tr> <td>Tan. θ</td> <td>$\leq 200\%$ of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>$\leq 200\%$ of initial specified value</td> </tr> </table>		Capacitance change	$\leq \pm 20\%$ of initial value	Tan. θ	$\leq 200\%$ of initial specified value	Leakage current	$\leq 200\%$ of initial specified value																																				
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GR

尺寸圖 Dimension



$L = 16 \rightarrow \alpha = 1$	$\phi D \leq 10 \rightarrow \beta = 0.5$
$L > 16 \rightarrow \alpha = 2$	$\phi D > 10 \rightarrow \beta = 1.0$

D	5	6	8	10	13	16	18	22	25
F ± 0.5	2	2.5	3.5	5	5	7.5	7.5	10	12.5
d ± 0.02	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8	1.0

Unit (mm)

D x L (m/m)

WV	10		16		25		35		50		63		100					
0.47													5*11	8	5*11	8	5*11	10
1	尺寸 Dimension : $\phi D \times L$ (mm)												5*11	12	5*11	12	5*11	14
2.2	紋波電流 Ripple Current : mA (rms) at 120Hz 105°C												5*11	18	5*11	20	5*11	22
3.3													5*11	23	5*11	24	5*11	27
4.7													5*11	27	5*11	29	5*11	34
10			5*11	40	5*11	40	5*11	40	5*11	40	5*11	48	6*11	58				
22	5*11	48	5*11	48	5*11	48	5*11	59	5*11	62	6*12	81	8*12	100				
33	5*11	56	5*11	58	5*11	65	6*12	69	6*12	88	6*12	99	8*12	135				
47	5*11	60	5*11	73	5*11	77	6*12	105	6*12	115	8*12	138	10*15	150				
100	5*11	98	5*11	102	6*12	140	8*12	205	8*12	252	10*15	280	10*21	300				
220	6*12	170	6*12	220	8*12	260	8*12	305	10*15	320	10*17	394	13*26	505				
330	6*12	243	8*12	250	8*12	320	10*16	350	10*17	415	10*20	505	16*32	660				
470	6*12	315	8*12	385	8*14	420	10*15	530	13*21 10*20	640	13*21	715	16*26	875				
1000	8*14	480	8*16 10*15	615	10*15	760	13*26	820	16*26	955	18*36	1150	22*36	1350				
2200	10*17 13*21	940	10*21 13*21	1000	13*21	1050	16*26	1165	16*32	1680	18*36	1980						
3300	10*20	1150	13*21	1340	16*26	1500	16*36	1800	18*36	2080	22*42	2360						
4700	13*26	1400	16*26	1580	16*32 16*26	1980	18*36	2100	22*36	2500	25*42	3800						

WV	160		200		250		350		400		450	
1	5*12	10	6*12	10	6*12	11	8*12	11	8*12	13	8*12	13
2.2	6*12	16	6*12	16	6*12	21	8*12	21	8*12	32	10*15	32
3.3	6*12	26	8*12	26	8*12	26	8*12	26	10*15	33	10*15	33
4.7	8*12	29	8*12	29	8*12 10*12	29	10*15	29	8*14 10*15	52	10*15	52
10	8*12	44	10*15	48	10*15	80	10*17	84	10*17	86	13*21	90
22	10*15	78	10*15 10*21	78	10*21	86	13*21	86	13*21	86	13*26	91
33	10*21	105	10*21	116	13*21	116	13*26 16*26	116	13*26	190	16*33	210
47	10*21	175	13*21	238	13*26	238	16*26	250	16*26 16*32	250	16*36	280
100	13*26 16*26	410	16*26	460	16*32	460	18*41	460	18*42	520	22*42	610
220	16*32	515	18*32	585	22*32	810	25*43	1150	25*43	1450		
330	18*40	880	18*42 22*35	910	25*43	1050						
470	22*36	1120	22*43 25*27	1150	25*43	1250						