

## Chip Type, 105°C Use, Low ESR, Long Life Capacitors

GREEN CAP

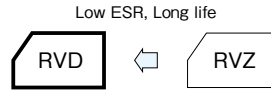
SMD

Low ESR

105°C 5000hours

Anti-cleaning solvent

- Compatible with surface mounting.
- Supplied with carrier taping.
- Guarantees 2000 hours at 105°C.  
(6.3V to 50V 10.0L,10.5L:5000 hours)  
(φ12.5 : 5000 hours)



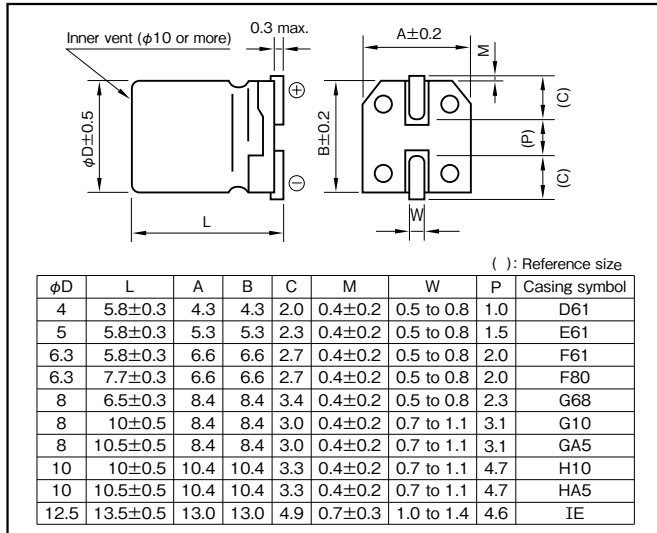
Marking color : Black print

### Specifications

Item	Performance																																						
Category temperature range (°C)	-55 to +105																																						
Tolerance at rated capacitance (%)	±20 (20°C,120Hz)																																						
Leakage current (μA) (max.)	0.01CV or 3 whichever is larger (after 2 minutes) C : Rated capacitance (μF) , V : Rated voltage (V) (20°C)																																						
Tangent of loss angle (tanδ)	<table border="1"> <thead> <tr> <th>Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>tanδ (max.)</td> <td>0.26</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> <td>0.08</td> <td>0.07</td> </tr> </tbody> </table> <p>0.02 is added to every 1000μF increase over 1000μF. (20°C,120Hz)</p>	Rated voltage (V)	6.3	10	16	25	35	50	63	80	100	tanδ (max.)	0.26	0.19	0.16	0.14	0.12	0.10	0.08	0.08	0.07																		
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Endurance (105°C) (Applied ripple current)	<table border="1"> <tbody> <tr> <td>Test time</td> <td>2000 hours (φ12.5, 6.3V to 50V 10.0L,10.5L : 5000 hours)</td> </tr> <tr> <td>Leakage current</td> <td>The initial specified value or less</td> </tr> <tr> <td>Percentage of capacitance change</td> <td>Within ±30% of initial value</td> </tr> <tr> <td>Tangent of the loss angle</td> <td>200% or less of the initial specified value (φ12.5, 6.3V to 50V 10.0L,10.5L : 300% or less)</td> </tr> </tbody> </table>	Test time	2000 hours (φ12.5, 6.3V to 50V 10.0L,10.5L : 5000 hours)	Leakage current	The initial specified value or less	Percentage of capacitance change	Within ±30% of initial value	Tangent of the loss angle	200% or less of the initial specified value (φ12.5, 6.3V to 50V 10.0L,10.5L : 300% or less)																														
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Shelf life (105°C)	Test time : 1000hours ; other items are same as the endurance. Voltage application treatment : According to JIS C5101-4 4.1																																						
Applicable standards	JIS C5101 - 1,- 18 (IEC 60384 - 1,- 18)																																						

### Outline Drawing

Unit : mm



Refer to individual page.  
(Soldering conditions, Land pattern size, The taping specifications)

### Coefficient of Frequency for Rated Ripple Current

Frequency (Hz)	50 · 60	120	1k	10k · 100k
Rated voltage (V)	0.50	0.50	0.75	1
6.3 to 100				

### Part numbering system

φ 10 or less (example : 16V100μF)

RVD	—	16	V	101	M	F61	U	□
Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol		Taping symbol

φ 12.5 (example : 16V1000μF)

RVD	—	16	V	102	M	IE	T	—	R5
Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol			Taping symbol

\*In the case of "for High Temperature Reflow" type, a series name is "RZB". (φ 4 to φ 10)  
\*If "For Vibration Resistance" type is required, please see the series RTD.

## Standard Ratings

Rated voltage (V)	Item	6.3				10				16			
		Case φD×L (mm)	Casing symbol	ESR (Ω max.)	Rated ripple current (mA <sub>rms</sub> )	Case φD×L (mm)	Casing symbol	ESR (Ω max.)	Rated ripple current (mA <sub>rms</sub> )	Case φD×L (mm)	Casing symbol	ESR (Ω max.)	Rated ripple current (mA <sub>rms</sub> )
10	—	—	—	—	—	—	—	—	—	4×5.8	D61	1.35	90
22	4×5.8	D61	1.35	90	4×5.8	D61	1.35	90	4×5.8	D61	1.35	90	
33	—	—	—	—	4×5.8	D61	1.35	90	5×5.8	E61	0.70	170	
					5×5.8	E61	0.70	170	—	—	—	—	
47	4×5.8	D61	1.35	90	—	—	—	—	5×5.8	E61	0.70	170	
	5×5.8	E61	0.70	170	—	—	—	—	6.3×5.8	F61	0.36	250	
100	5×5.8	E61	0.70	170	—	—	—	—	6.3×5.8	F61	0.36	250	
	6.3×5.8	F61	0.36	250	—	—	—	—	—	—	—	—	
220	6.3×5.8	F61	0.36	250	6.3×7.7	F80	0.30	300	6.3×7.7	F80	0.30	300	
					8×6.5	G68	0.30	300	8×6.5	G68	0.30	300	
330	6.3×7.7	F80	0.30	300	8×10	G10	0.16	600	8×10	G10	0.16	600	
	8×6.5	G68	0.30	300	—	—	—	—	—	—	—	—	
470	8×10	G10	0.16	600	8×10	G10	0.16	600	8×10	G10	0.16	600	
680	—	—	—	—	8×10	G10	0.16	600	10×10	H10	0.090	850	
									10×10.5	HA5	0.080	850	
1000	8×10	G10	0.16	600	10×10	H10	0.090	850	125×135	IE	0.054	1160	
					10×10.5	HA5	0.080	850	—	—	—	—	
1500	10×10	H10	0.090	850	125×135	IE	0.054	1160	125×135	IE	0.054	1160	
	10×10.5	HA5	0.080	850	—	—	—	—	—	—	—	—	
2200	125×135	IE	0.054	1160	125×135	IE	0.054	1160	—	—	—	—	

Rated voltage (V)	Item	25				35				50			
		Case φD×L (mm)	Casing symbol	ESR (Ω max.)	Rated ripple current (mA <sub>rms</sub> )	Case φD×L (mm)	Casing symbol	ESR (Ω max.)	Rated ripple current (mA <sub>rms</sub> )	Case φD×L (mm)	Casing symbol	ESR (Ω max.)	Rated ripple current (mA <sub>rms</sub> )
4.7	—	—	—	—	4×5.8	D61	1.35	90	4×5.8	D61	2.7	60	
10	4×5.8	D61	1.35	90	4×5.8	D61	1.35	90	5×5.8	E61	1.5	90	
					5×5.8	E61	0.70	170	6.3×5.8	F61	0.86	170	
22	5×5.8	E61	0.70	170	5×5.8	E61	0.70	170	6.3×5.8	F61	0.86	170	
33	5×5.8	E61	0.70	170	6.3×5.8	F61	0.36	250	6.3×7.7	F80	0.66	195	
	6.3×5.8	F61	0.36	250					8×6.5	G68	0.63	200	
47	6.3×5.8	F61	0.36	250	6.3×5.8	F61	0.36	250	6.3×7.7	F80	0.66	195	
									8×6.5	G68	0.63	200	
100	6.3×7.7	F80	0.30	300	6.3×7.7	F80	0.30	300	8×10	G10	0.34	350	
	8×6.5	G68	0.30	300	8×10	G10	0.16	600	8×10.5	GA5	0.32	350	
220	8×10	G10	0.16	600	8×10	G10	0.16	600	10×10	H10	0.20	700	
									10×10.5	HA5	0.18	700	
330	8×10	G10	0.16	600	10×10	H10	0.090	850	125×135	IE	0.12	900	
					10×10.5	HA5	0.080	850					
470	10×10	H10	0.090	850	125×135	IE	0.054	1160	—	—	—	—	
680	125×135	IE	0.054	1160	125×135	IE	0.054	1160	—	—	—	—	
1000	125×135	IE	0.054	1160	—	—	—	—	—	—	—	—	

Rated voltage (V)	Item	63				80				100			
		Case φD×L (mm)	Casing symbol	ESR (Ω max.)	Rated ripple current (mA <sub>rms</sub> )	Case φD×L (mm)	Casing symbol	ESR (Ω max.)	Rated ripple current (mA <sub>rms</sub> )	Case φD×L (mm)	Casing symbol	ESR (Ω max.)	Rated ripple current (mA <sub>rms</sub> )
4.7	5×5.8	E61	3.0	50	—	—	—	—	—	—	—	—	
10	6.3×5.8	F61	1.5	80	6.3×7.7	F80	2.4	60	—	—	—	—	
22	6.3×7.7	F80	1.2	120	8×10	G10	0.90	130	8×10	G10	1.30	130	
33	8×10	G10	0.65	250	8×10	G10	0.90	130	10×10	H10	0.70	200	
47	8×10	G10	0.65	250	10×10	H10	0.50	200	—	—	—	—	
68	8×10	G10	0.65	250	—	—	—	—	—	—	—	—	
100	10×10	H10	0.35	400	125×135	IE	0.18	550	—	—	—	—	
	125×135	IE	0.16	600					—	—	—	—	
220	125×135	IE	0.16	600	—	—	—	—	—	—	—	—	

(Note) Rated ripple current : 105°C, 100kHz  
ESR : 20°C, 100kHz

NOTE : Design, Specifications are subject to change without notice.  
It is recommended that you shall obtain technical specifications from ELNA to ensure that the component is suitable for your use.