

RZD, RMD VERTICAL CHIP TYPE ALUMINUM ELECTROLYTIC CAPACITORS **ELNA**

Chip Type, 105°C Use, Low ESR, High CV Capacitors

GREEN CAP

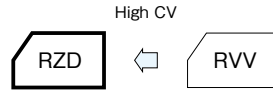
SMD

Low ESR

105°C
2000hours

Anti-cleaning solvent

- Compatible with surface mounting.
- Supplied with carrier taping.
- Guaranteed 2000 hours at 105°C.



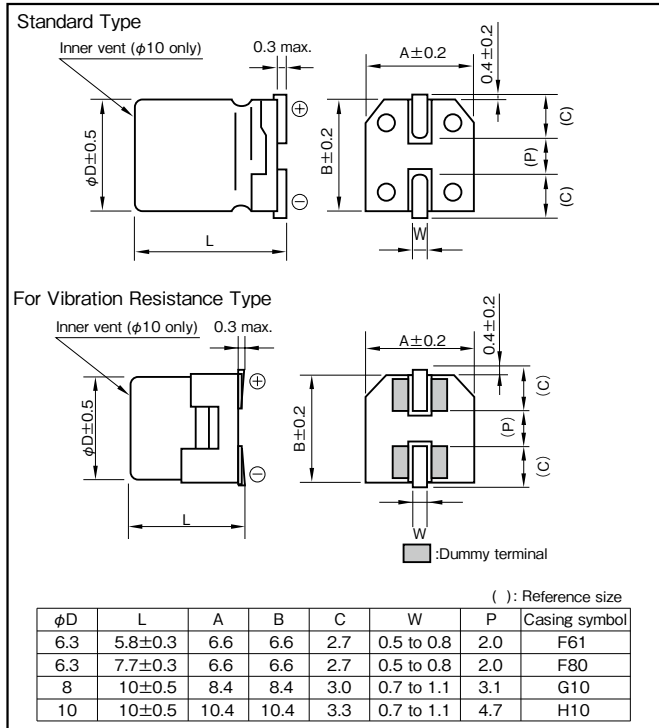
Marking color : Black print

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> </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> </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	tanδ (max.)	0.26	0.19	0.16	0.14	0.12	0.10																																																		
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Characteristics at high and low temperature	<table border="1"> <thead> <tr> <th rowspan="2">Rated voltage (V)</th> <th colspan="2">6.3</th> <th colspan="2">10</th> <th colspan="2">16</th> <th colspan="2">25</th> <th colspan="2">35</th> <th colspan="2">50</th> </tr> <tr> <th colspan="12">Impedance ratio (max.)</th> </tr> </thead> <tbody> <tr> <td>Z-25°C/Z+20°C</td> <td colspan="2">2</td> <td colspan="2">2</td> <td colspan="2">2</td> <td colspan="2">2</td> <td colspan="2">2</td> <td colspan="2">2</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td colspan="2">3</td> <td colspan="2">3</td> <td colspan="2">3</td> <td colspan="2">3</td> <td colspan="2">3</td> <td colspan="2">3</td> </tr> <tr> <td>Z-55°C/Z+20°C</td> <td colspan="2">4</td> <td colspan="2">4</td> <td colspan="2">4</td> <td colspan="2">3</td> <td colspan="2">3</td> <td colspan="2">3</td> </tr> </tbody> </table> <p>(120Hz)</p>	Rated voltage (V)	6.3		10		16		25		35		50		Impedance ratio (max.)												Z-25°C/Z+20°C	2		2		2		2		2		2		Z-40°C/Z+20°C	3		3		3		3		3		3		Z-55°C/Z+20°C	4		4		4		3		3		3	
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Endurance (105°C) (Applied ripple current)	<table border="1"> <thead> <tr> <th>Test time</th> <th>2000 hours</th> </tr> </thead> <tbody> <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</td> </tr> </tbody> </table>	Test time	2000 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																																																								
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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 50				

Part numbering system

Standard Type (example : 35V150µF)

RZD	—	35	V	151	M	F80	U	□
Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol		Taping symbol

For Vibration Resistance Type (example : 25V820µF)

RMD	—	25	V	821	M	H10	U	□
Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol		Taping symbol

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.

Standard Ratings

Rated voltage (V) Item Rated capacitance (μF)	6.3				10				16			
	Case	Casing symbol	ESR (Ω max.)	Rated ripple current (mA rms)	Case	Casing symbol	ESR (Ω max.)	Rated ripple current (mA rms)	Case	Casing symbol	ESR (Ω max.)	Rated ripple current (mA rms)
	φD × L (mm)				φD × L (mm)				φD × L (mm)			
150	—	—	—	—	—	—	—	—	6.3 × 5.8	F61	0.26	300
220	—	—	—	—	6.3 × 5.8	F61	0.26	300	6.3 × 5.8	F61	0.26	300
330	6.3 × 5.8	F61	0.26	300	6.3 × 7.7	F80	0.16	600	6.3 × 7.7	F80	0.16	600
470	6.3 × 7.7	F80	0.16	600	6.3 × 7.7	F80	0.16	600	—	—	—	—
680	6.3 × 7.7	F80	0.16	600	—	—	—	—	8 × 10	G10	0.08	850
1000	—	—	—	—	8 × 10	G10	0.08	850	10 × 10	H10	0.06	1190
1500	8 × 10	G10	0.08	850	10 × 10	H10	0.06	1190	—	—	—	—
2200	10 × 10	H10	0.06	1190	—	—	—	—	—	—	—	—

Rated voltage (V) Item Rated capacitance (μF)	25				35				50			
	Case	Casing symbol	ESR (Ω max.)	Rated ripple current (mA rms)	Case	Casing symbol	ESR (Ω max.)	Rated ripple current (mA rms)	Case	Casing symbol	ESR (Ω max.)	Rated ripple current (mA rms)
	φD × L (mm)				φD × L (mm)				φD × L (mm)			
47	—	—	—	—	—	—	—	—	6.3 × 5.8	F61	0.68	195
100	—	—	—	—	6.3 × 5.8	F61	0.26	300	6.3 × 7.7	F80	0.34	350
150	6.3 × 5.8	F61	0.26	300	6.3 × 7.7	F80	0.16	600	—	—	—	—
220	6.3 × 7.7	F80	0.16	600	—	—	—	—	8 × 10	G10	0.18	670
330	—	—	—	—	8 × 10	G10	0.08	850	10 × 10	H10	0.12	900
470	8 × 10	G10	0.08	850	—	—	—	—	—	—	—	—
560	—	—	—	—	10 × 10	H10	0.06	1190	—	—	—	—
820	10 × 10	H10	0.06	1190	—	—	—	—	—	—	—	—

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