RV5 VERTICAL CHIP TYPE ALUMINUM ELECTROLYTIC CAPACITORS

ELNA®

Chip Type 85˚C High CV Capacitors

GREEN CAP | SMD | Anti-cleaning solvent

- Compatible with surface mounting.
- Supplied with carrier taping.
- Guarantees 2000 hours at 85°C.

High CV

RV5 ⇦ RV3

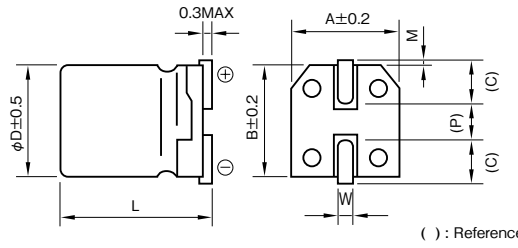
Marking color : Black print

Specifications

Item	Performance
Category temperature range (℃)	−40 to +85
Tolerance at rated capacitance (%)	±20 (20℃,120Hz)
Leakage current (μA)	Less than 0.01CV or 3 whichever is larger (after 2 minutes) C : Rated capacitance (μF) ; V : Rated voltage (V) (20℃)
Tangent of loss angle (tanδ)	Rated voltage (V): 4 / 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 100 tanδ (max.): Refer to following page. (20℃,120Hz)
Characteristics at high and low temperature	Rated voltage (V): 4 / 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 100 Impedance ratio (max.) Z−25℃/Z+20℃: 7 / 4 / 3 / 2 / 2 / 2 / 2 / 2 / 2 Impedance ratio (max.) Z−40℃/Z+20℃: 17 / 10 / 8 / 6 / 4 / 3 / 3 / 3 / 3 (120Hz)
Endurance (85℃) (Applied ripple current)	Test time: 2000 hours (φ3 : 1000 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
Shelf life (85℃)	Test time : 1000 hours; other items are the same as those for the endurance. Voltage application treatment : According to JIS C5101-1
Applicable standards	JIS C5101-1 1998, -18 1999 (IEC 60384-1 1992, -18 1993)

Outline Drawing

Unit : mm



( ) : Reference size

φD	L	A	B	C	M	W	P	Casing symbol
3	5.3±0.2	3.3	3.3	1.5	0.4±0.2	0.45 to 0.75	0.8	B55
4	5.3±0.2	4.3	4.3	2.0	0.4±0.2	0.5 to 0.8	1.0	D55
5	5.3±0.2	5.3	5.3	2.3	0.4±0.2	0.5 to 0.8	1.5	E55
6.3	5.3±0.2	6.3	6.3	2.7	0.4±0.2	0.5 to 0.8	2.0	F55
6.3	7.7±0.3	6.6	6.6	2.7	0.4±0.2	0.5 to 0.8	2.0	F80
8	6.5±0.3	8.4	8.4	3.4	0.4±0.2	0.5 to 0.8	2.3	G68
8	10±0.5	8.4	8.4	3.0	0.4±0.2	0.7 to 1.1	3.1	G10
10	10±0.5	10.4	10.4	3.3	0.4±0.2	0.7 to 1.1	4.7	H10
12.5	13.5±0.5	13.0	13.0	4.9	0.7±0.3	1.0 to 1.4	4.6	I E

- Soldering conditions are described on page 13.
- Land pattern size are described on page 11.
- The taping spesifications are described on page 14.

Coefficient of Frequency for Rated Ripple Current

Rated voltage (V) \ Frequency (Hz)	50・60	120	1k	10k・100k
4 to 16	0.80	1	1.15	1.25
25 to 35	0.80	1	1.25	1.40
50 to 63	0.80	1	1.35	1.50
100	0.70	1	1.35	1.50

Part numbering system (example : 16V470μF)

RV5	—	16	V	471	M	G10	U	—	⬚
Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol			Taping symbol

Standard Ratings

Rated voltage(V) / Item / Rated capacitance(μF)	4				6.3				10				16				25			
	Case φD×L (mm)	Casing symbol	tan δ	Rated ripple current (mArms)	Case φD×L (mm)	Casing symbol	tan δ	Rated ripple current (mArms)	Case φD×L (mm)	Casing symbol	tan δ	Rated ripple current (mArms)	Case φD×L (mm)	Casing symbol	tan δ	Rated ripple current (mArms)	Case φD×L (mm)	Casing symbol	tan δ	Rated ripple current (mArms)
4.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3×5.3	B55	0.16	11
10	–	–	–	–	–	–	–	–	4×5.3	D55	0.24	23	3×5.3	B55	0.22	18	3×5.3	B55	0.18	16
													4×5.3	D55	0.20	26	4×5.3	D55	0.18	23
22	3×5.3	B55	0.42	14	3×5.3	B55	0.35	21	3×5.3	B55	0.32	20	4×5.3	D55	0.28	30	4×5.3	D55	0.18	24
					4×5.3	D55	0.28	31	4×5.3	D55	0.24	26	5×5.3	E55	0.20	44	5×5.3	E55	0.18	43
33	4×5.3	D55	0.42	31	4×5.3	D55	0.35	28	4×5.3	D55	0.32	32	4×5.3	D55	0.28	32	5×5.3	E55	0.18	54
					5×5.3	E55	0.28	44	5×5.3	E55	0.24	48	5×5.3	E55	0.28	44	6.3×5.3	F55	0.14	67
47	4×5.3	D55	0.42	37	4×5.3	D55	0.35	34	4×5.3	D55	0.32	33	5×5.3	E55	0.28	52	6.3×5.3	F55	0.18	75
					5×5.3	E55	0.28	52	5×5.3	E55	0.32	54	6.3×5.3	F55	0.20	75				
100	5×5.3	E55	0.42	63	5×5.3	E55	0.35	58	5×5.3	E55	0.32	54	6.3×5.3	F55	0.20	70	6.3×7.7	F80	0.18	124
					6.3×5.3	F55	0.28	89	6.3×5.3	F55	0.24	98					8×6.5	G68	0.18	118
150	–	–	–	–	6.3×5.3	F55	0.35	83	6.3×5.3	F55	0.32	79	6.3×7.7	F80	0.28	109	–	–	–	–
									6.3×7.7	F80	0.32	98								
220	6.3×5.3	F55	0.42	110	6.3×5.3	F55	0.35	88	6.3×7.7	F80	0.32	173	6.3×7.7	F80	0.28	162	8×10	G10	0.14	252
					6.3×7.7	F80	0.35	113	8×6.5	G68	0.32	175	8×10	G10	0.20	220				
330	–	–	–	–	6.3×7.7	F80	0.35	188	8×10	G10	0.24	230	8×10	G10	0.20	260	8×10	G10	0.18	300
					8×6.5	G68	0.35	190									10×10	H10	0.14	458
470	–	–	–	–	8×10	G10	0.28	262	8×10	G10	0.32	310	8×10	G10	0.28	307	10×10	H10	0.14	458
													10×10	H10	0.20	458				
680	–	–	–	–	–	–	–	–	–	–	–	–	10×10	H10	0.28	380	–	–	–	–
820	–	–	–	–	8×10	G10	0.35	320	–	–	–	–	–	–	–	–	12.5×13.5	IE	0.14	552
1000	–	–	–	–	10×10	H10	0.28	458	10×10	H10	0.24	454	12.5×13.5	IE	0.20	521	–	–	–	–
1500	–	–	–	–	10×10	H10	0.35	489	12.5×13.5	IE	0.24	560	–	–	–	–	–	–	–	–
2200	–	–	–	–	12.5×13.5	IE	0.28	651	–	–	–	–	–	–	–	–	–	–	–	–

Rated voltage(V) / Item / Rated capacitance(μF)	35				50				63				100			
	Case φD×L (mm)	Casing symbol	tan δ	Rated ripple current (mArms)	Case φD×L (mm)	Casing symbol	tan δ	Rated ripple current (mArms)	Case φD×L (mm)	Casing symbol	tan δ	Rated ripple current (mArms)	Case φD×L (mm)	Casing symbol	tan δ	Rated ripple current (mArms)
0.22	–	–	–	–	3×5.3	B55	0.12	2	–	–	–	–	–	–	–	–
					4×5.3	D55	0.10	5								
0.33	–	–	–	–	3×5.3	B55	0.12	3	–	–	–	–	–	–	–	–
					4×5.3	D55	0.10	6								
0.47	–	–	–	–	3×5.3	B55	0.12	4	–	–	–	–	–	–	–	–
					4×5.3	D55	0.10	7								
1	–	–	–	–	3×5.3	B55	0.12	6	–	–	–	–	–	–	–	–
					4×5.3	D55	0.10	10								
2.2	3×5.3	B55	0.14	8	3×5.3	B55	0.12	9	–	–	–	–	–	–	–	–
					4×5.3	D55	0.10	15								
3.3	3×5.3	B55	0.14	9	3×5.3	B55	0.12	10	4×5.3	D55	0.12	12	–	–	–	–
					4×5.3	D55	0.10	19								
4.7	3×5.3	B55	0.14	13	4×5.3	D55	0.12	20	5×5.3	E55	0.12	20	–	–	–	–
	4×5.3	D55	0.12	20	5×5.3	E55	0.10	26								
10	4×5.3	D55	0.14	27	5×5.3	E55	0.12	34	6.3×5.3	F55	0.12	32	8×10	G10	0.10	94
	5×5.3	E55	0.12	34	6.3×5.3	F55	0.10	44								
22	5×5.3	E55	0.14	47	6.3×5.3	F55	0.12	47	6.3×7.7	F80	0.12	60	8×10	G10	0.12	94
	6.3×5.3	F55	0.12	59					8×6.5	G68	0.12	62				
33	6.3×5.3	F55	0.14	67	6.3×7.7	F80	0.12	82	8×10	G10	0.10	139	8×10	G10	0.12	94
					8×6.5	G68	0.12	83					10×10	H10	0.10	189
47	6.3×5.3	F55	0.14	54	6.3×7.7	F80	0.12	85	8×10	G10	0.10	139	10×10	H10	0.12	189
	6.3×7.7	F80	0.14	90	8×10	G10	0.10	252	10×10	H10	0.12	226				
100	6.3×7.7	F80	0.14	120	8×10	G10	0.12	252	10×10	H10	0.10	226	12.5×13.5	IE	0.10	242
					10×10	H10	0.10	458								
220	8×10	G10	0.14	260	–	–	–	–	12.5×13.5	IE	0.10	343	–	–	–	–
	10×10	H10	0.12	458												
330	10×10	H10	0.14	360	12.5×13.5	IE	0.10	451	–	–	–	–	–	–	–	–
470	12.5×13.5	IE	0.12	451	–	–	–	–	–	–	–	–	–	–		–

(Note) Rated ripple current : 85° C, 120Hz