HV

CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

ELNA®

Conductive Polymer Hybrid Capacitors

GREEN CAP | SMD | Low ESR | 105℃ 10000hours

- Low ESR and high ripple current are realized.
- HT is resist to vibration. (30G guaranteed)
- Equivalent to conductive polymer type Aluminum Electrolytic Capacitor. (There are little characteristics change by temperature and frequency)
- Guaranteed 105℃, 10000 hours.

Vibration resistance

HT ⇦ HV

Marking color : Blue print

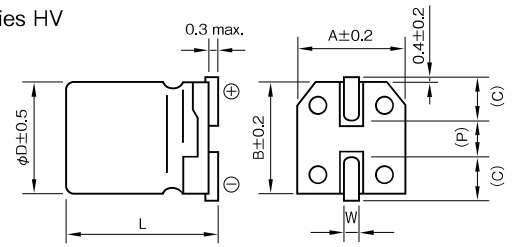
Specifications

Item	Performance
Category temperature range (℃)	−55~+105
Tolerance at rated capacitance (%)	±20 (20℃, 120Hz)
Leakage current (μA)	Less than 0.01CV or 3(μA)whichever is larger (after 2 minutes) C : Rated capacitance (μF) , V : Rated voltage (V) (20℃)
Tangent of loss angle (tanδ)	Rated voltage (V): 25 / 35 / 50 / 63 / 80 / 100 tanδ (max.): 0.14 / 0.12 / 0.10 / 0.08 / 0.08 / 0.08 (20℃, 120Hz)
Characteristics at high and low temperature	Impedance ratio (max.) Z−25℃/Z+20℃: 1.5 Z−55℃/Z+20℃: 2.0 (100kHz)
Endurance (105℃) (Applied ripple current)	Test time: 10000 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 ESR change: 200% or less of the initial specified value
Shelf life (105℃)	Test time : 1000hours ; other items are same as the endurance. Voltage application treatment

Outline Drawing

Unit : mm

Series HV



( ) : Reference size

φD	L	A	B	C	W	P	Casing symbol
6.3	5.8±0.3	6.6	6.6	2.7	0.5 to 0.8	2.0	F61
6.3	7.7±0.3	6.6	6.6	2.7	0.5 to 0.8	2.0	F80
8	8.7±0.3	8.4	8.4	3.0	0.5 to 0.8	3.1	G90
8	10±0.5	8.4	8.4	3.0	0.7 to 1.1	3.1	G10
10	8.7±0.3	10.4	10.4	3.3	0.7 to 1.1	4.7	H90
10	10±0.5	10.4	10.4	3.3	0.7 to 1.1	4.7	H10
10	12.5±0.5	10.4	10.4	3.3	0.7 to 1.1	4.7	HC5

• Soldering conditions are described on page 15.
• Land pattern size are described on page 13.
• The taping specifications are described on page 16.

Coefficient of Frequency for Rated Ripple Current

Frequency (Hz) / Rated voltage (V)	120	1k	10k	100k or more
25 to 100	0.10	0.30	0.60	1

Part numbering system

HV (example : 35V270μF)

HV	—	35	V	271	M	H10	E	—	----
Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol			Taping symbol

Standard Ratings

Rated voltage (V) / Item / Rated capacitance (μF)	25			35			50			63		
	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current
	φD×L (mm)	(mΩ max.)	(mArms)	φD×L (mm)	(mΩ max.)	(mArms)	φD×L (mm)	(mΩ max.)	(mArms)	φD×L (mm)	(mΩ max.)	(mArms)
10	—	—	—	—	—	—	—	—	—	6.3×5.8	120	1000
22	—	—	—	—	—	—	6.3×5.8	80	1100	6.3×7.7	80	1500
27	—	—	—	—	—	—	—	—	—	8×8.7	50	1600
33	—	—	—	—	—	—	6.3×7.7	40	1600	8×10	40	1600
47	—	—	—	6.3×5.8	60	1300	8×8.7	35	1700	10×8.7	35	1700
56	6.3×5.8	50	1300	—	—	—	—	—	—	10×10	30	1800
68	—	—	—	6.3×7.7	35	2000	8×10	30	1800	—	—	—
82	—	—	—	—	—	—	10×8.7	28	1900	—	—	—
100	6.3×7.7	30	2000	8×8.7	30	2100	10×10	28	2000	10×12.5	26	2500
150	8×8.7	27	2100	8×10	27	2300	10×12.5	24	3000	—	—	—
220	8×10	27	2300	10×8.7	25	2400	—	—	—	—	—	—
270	10×8.7	25	2400	10×10	20	2500	—	—	—	—	—	—
330	10×10	20	2500	—	—	—	—	—	—	—	—	—
390	—	—	—	10×12.5	18	3500	—	—	—	—	—	—
560	10×12.5	18	3500	—	—	—	—	—	—	—	—	—

Rated voltage (V) / Item / Rated capacitance (μF)	80			100		
	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current
	φD×L (mm)	(mΩ max.)	(mArms)	φD×L (mm)	(mΩ max.)	(mArms)
15	—	—	—	10×10	45	1600
22	8×10	45	1550	—	—	—
33	10×10	36	1700	—	—	—

(Note) Rated ripple current : 105℃ , 100kHz ; ESR : 20℃ , 100kHz