HVK,HTK

CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

ELNA®

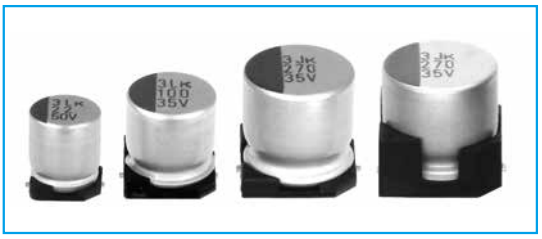
Conductive Polymer Hybrid Capacitors

GREEN CAP | SMD | Low ESR | 125℃ 4000hours

- Low ESR and high ripple current are realized.
- HTK is resist to vibration. (30G guaranteed)
- Equivalent to conductive polymer type Aluminum Electrolytic Capacitor. (There are little characteristics change by temperature and frequency)
- Guaranteed 125℃, 4000 hours.

Vibration resistance ⇦ High temperature

HTK ⇦ HVK ⇦ HV



Marking color : Blue print

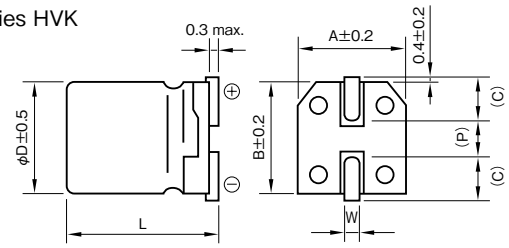
Specifications

Item	Performance
Category temperature range (℃)	−55～+125
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 (125℃) (Applied ripple current)	Test time: 4000 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 (125℃)	Test time : 1000hours ; other items are same as the endurance. Voltage application treatment

Outline Drawing

Unit : mm

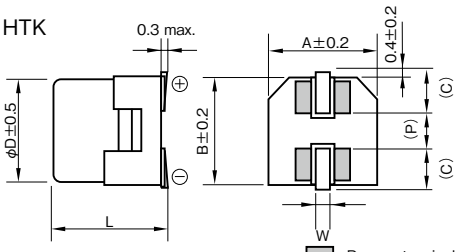
Series HVK



( ) : 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

Series HTK



: Dummy terminal

( ) : Reference size

φD	L	A	B	C	W	P	Casing symbol
8	10±0.5	8.4	8.4	3.0	0.7 to 1.1	3.1	G10
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

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

Part numbering system

HVK (example : 35V270μF)

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

HTK (example : 35V270μF)

HTK	—	35	V	271	M	H10	E	—	⬚
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)	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	700
22	—	—	—	—	—	—	6.3×5.8	80	750	6.3×7.7	80	900
27	—	—	—	—	—	—	—	—	—	8×8.7	50	1000
33	—	—	—	—	—	—	6.3×7.7	40	1100	8×10	40	1100
47	—	—	—	6.3×5.8	60	900	8×8.7	35	1200	10×8.7	35	1200
56	6.3×5.8	50	900	—	—	—	—	—	—	10×10	30	1400
68	—	—	—	6.3×7.7	35	1400	8×10	30	1250	—	—	—
82	—	—	—	—	—	—	10×8.7	28	1400	—	—	—
100	6.3×7.7	30	1400	8×8.7	30	1500	10×10	28	1600	10×12.5	26	2000
150	8×8.7	27	1500	8×10	27	1600	10×12.5	24	2500	—	—	—
220	8×10	27	1600	10×8.7	25	1700	—	—	—	—	—	—
270	10×8.7	25	1700	10×10	20	2000	—	—	—	—	—	—
330	10×10	20	2000	—	—	—	—	—	—	—	—	—
390	—	—	—	10×12.5	18	3000	—	—	—	—	—	—
560	10×12.5	18	3000	—	—	—	—	—	—	—	—	—

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	1000
22	8×10	45	1100	—	—	—
33	10×10	36	1200	—	—	—

(Note) Rated ripple current : 125℃ , 100kHz ; ESR : 20℃ , 100kHz