

Conductive Polymer Hybrid Capacitors

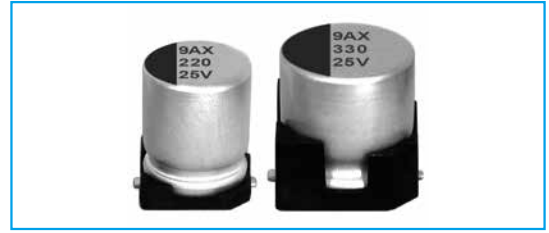
GREEN CAP

SMD

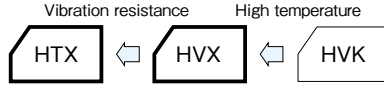
Low ESR

135°C
4000hours

- Low ESR and high ripple current are realized.
- HTX is resist to vibration. (30G guaranteed)
- Equivalent to conductive polymer type Aluminum Electrolytic Capacitor. (There are little characteristics change by temperature and frequency)
- Guaranteed 135°C, 4000 hours.(φ 6.3: 2000 hours)



Marking color : Blue print



Specifications

Item	Performance												
Category temperature range (°C)	-55~+135												
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"> <tr> <td>Rated voltage (V)</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> </tr> <tr> <td>tanδ (max.)</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> </tr> </table> (20°C, 120Hz)	Rated voltage (V)	16	25	35	50	63	tanδ (max.)	0.16	0.14	0.12	0.10	0.08
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Endurance (135°C) (Applied ripple current)	<table border="1"> <tr> <td>Test time</td> <td>4000 hours(φ6.3: 2000 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</td> </tr> <tr> <td>ESR change</td> <td>200% or less of the initial specified value</td> </tr> </table>	Test time	4000 hours(φ6.3: 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	ESR change	200% or less of the initial specified value		
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Shelf life (135°C)	Test time : 1000hours ; other items are same as the endurance. Voltage application treatment : According to JIS C5101-4 4.1.												

Outline Drawing

Unit : mm

Series HVX

φD	L	A	B	C	W	P	Size code
6.3	5.8±0.3	6.6	6.6	2.7	0.5 to 0.8	2.0	DC8
6.3	7.7±0.3	6.6	6.6	2.7	0.5 to 0.8	2.0	DE7
8	10±0.5	8.4	8.4	3.0	0.7 to 1.1	3.1	EH0
10	10±0.5	10.4	10.4	3.3	0.7 to 1.1	4.7	FH0
10	12.5±0.5	10.4	10.4	3.3	0.7 to 1.1	4.7	FK5

(●Marked:2000 hours guaranteed)

Series HTX

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10	10±0.5	10.4	10.4	3.3	0.7 to 1.1	4.7	FH0
10	12.5±0.5	10.4	10.4	3.3	0.7 to 1.1	4.7	FK5

□ : Dummy terminal

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

Coefficient of Frequency for Rated Ripple Current

Frequency (Hz)	120	1k	10k	100k or more
Rated voltage (V)	0.10	0.30	0.60	1
16 to 63				

Product code system (*For general product)

HVX (example : 16V270μF)

RS*	HVX	271	M	1E	EHO	□	□
Category code	Series code	capacitance code	Cap tol. code	Voltage code	Size code	Taping and packing code	Additional code

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Category code	Series code	capacitance code	Cap tol. code	Voltage code	Size code	Taping and packing code	Additional code

For details, refer to the various "Product Code System" pages.

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 (●Marked: 2000 hours guaranteed)

Rated voltage (V) Rated capacitance (μF)	Item	16 (1E)			25 (1T)			35 (1G)			50 (1U)		
		Case φD×L (mm)	ESR (mΩ max.)	Rated ripple current (mA rms)	Case φD×L (mm)	ESR (mΩ max.)	Rated ripple current (mA rms)	Case φD×L (mm)	ESR (mΩ max.)	Rated ripple current (mA rms)	Case φD×L (mm)	ESR (mΩ max.)	Rated ripple current (mA rms)
22	—	—	—	—	—	—	—	—	—	—	● 6.3×5.8	80	750
33	—	—	—	—	—	—	—	—	—	—	● 6.3×7.7	40	1100
47	—	—	—	—	—	—	—	● 6.3×5.8	60	900	—	—	—
56	—	—	—	—	● 6.3×5.8	50	900	—	—	—	—	—	—
68	—	—	—	—	—	—	—	● 6.3×7.7	35	1400	8×10	30	1250
82	● 6.3×5.8	45	950	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	● 6.3×7.7	30	1400	—	—	—	10×10	28	1600
150	● 6.3×7.7	27	1450	—	—	—	—	8×10	22	1600	10×12.5	24	2500
220	—	—	—	8×10	22	1600	—	—	—	—	—	—	—
270	—	8×10	20	1700	—	—	—	10×10	20	2000	—	—	—
330	—	—	—	—	10×10	20	2000	—	—	—	—	—	—
390	—	—	—	—	—	—	—	10×12.5	18	3000	—	—	—
470	—	10×10	18	2100	—	—	—	—	—	—	—	—	—
560	—	—	—	—	10×12.5	18	3000	—	—	—	—	—	—

Rated voltage (V) Rated capacitance (μF)	Item	63 (4E)		
		Case φD×L (mm)	ESR (mΩ max.)	Rated ripple current (mA rms)
10	● 6.3×5.8	120	700	
22	● 6.3×7.7	80	900	
33	8×10	40	1100	
56	10×10	30	1400	
100	10×12.5	26	2000	

(Note) Rated ripple current : 135°C , 100kHz ; ESR : 20°C , 100kHz