

## Conductive Polymer Hybrid Capacitors

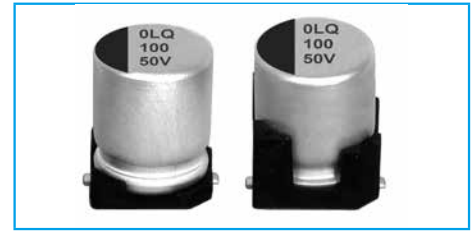
GREEN CAP

SMD

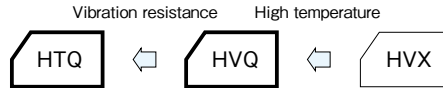
Low ESR

150°C  
1000hours

- Low ESR and high ripple current are realized.
- HTQ is resist to vibration. (30G guaranteed)
- Equivalent to conductive polymer type Aluminum Electrolytic Capacitor. (There are little characteristics change by temperature and frequency)
- Guaranteed 150° C, 1000 hours.



Marking color : Blue print

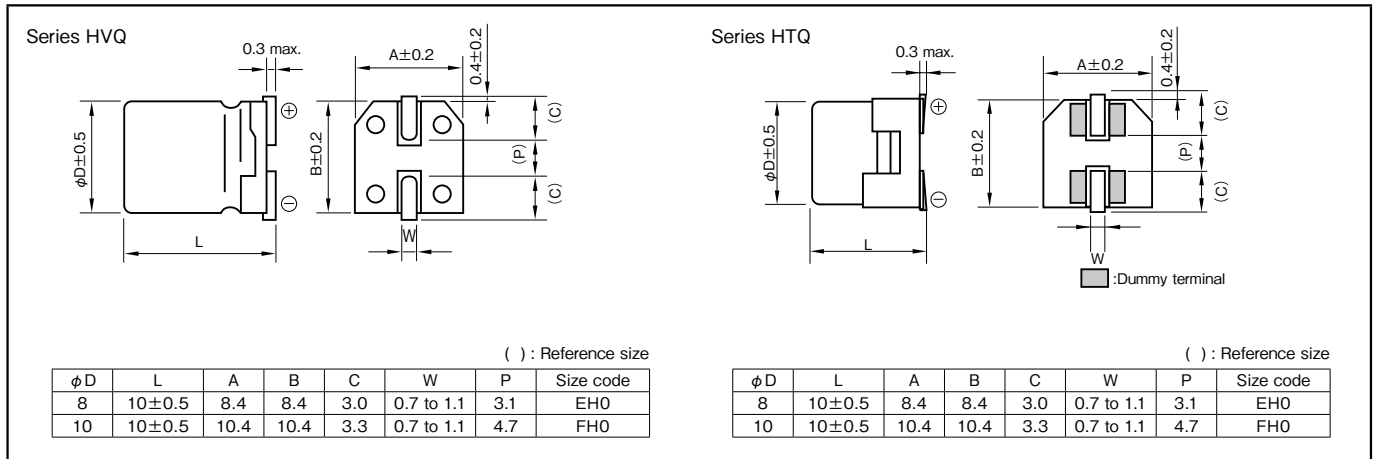


### Specifications

Item	Performance												
Category temperature range (°C)	-55 to +150												
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 (tan δ)	<table border="1"> <thead> <tr> <th>Rated voltage (V)</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>tan δ (max.)</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> </tr> </tbody> </table> (20°C, 120Hz)	Rated voltage (V)	16	25	35	50	63	tan δ (max.)	0.16	0.14	0.12	0.10	0.08
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Characteristics at high and low temperature	Impedance ratio (max.) <table border="1"> <tbody> <tr> <td>Z-25°C / Z+20°C</td> <td>1.5</td> </tr> <tr> <td>Z-55°C / Z+20°C</td> <td>2.0</td> </tr> </tbody> </table> (100Hz)	Z-25°C / Z+20°C	1.5	Z-55°C / Z+20°C	2.0								
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Endurance (150°C) (Applied ripple current)	<table border="1"> <tbody> <tr> <td>Test time</td> <td>1000 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> </tbody> </table>	Test time	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	ESR change	200% or less of the initial specified value		
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ESR change	200% or less of the initial specified value												
Shelf life (150°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



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)

HVQ (example : 16V270µF)

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

HTQ (example : 16V270µF)

RS*	HTQ	271	M	1E	EHO		
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

Rated voltage (V) Rated capacitance (μF)	16 (1L)			25 (1T)			35 (1G)			50 (1U)		
	Item 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)
68	—	—	—	—	—	—	—	—	—	8×10	30	660
100	—	—	—	—	—	—	—	—	—	10×10	28	800
150	—	—	—	—	—	—	8×10	22	710	—	—	—
220	—	—	—	8×10	22	740	—	—	—	—	—	—
270	8×10	20	740	—	—	—	10×10	20	830	—	—	—
330	—	—	—	10×10	20	850	—	—	—	—	—	—
470	10×10	18	850	—	—	—	—	—	—	—	—	—

Rated voltage (V) Rated capacitance (μF)	63 (4E)		
	Item Case φD×L (mm)	ESR (mΩ max.)	Rated ripple current (mA rms)
33	8×10	30	610
56	10×10	28	710

(Note) Rated ripple current : 150°C , 100kHz ; ESR : 20°C , 100kHz