

Code in front of series have been extracted from product code, which describes the segment of products, such as type and features.

- 150° C, High temperature and long life are realized.
- HTY 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, 2000 hours.
- Environmental : GREEN CAP™ , RoHS compliance.



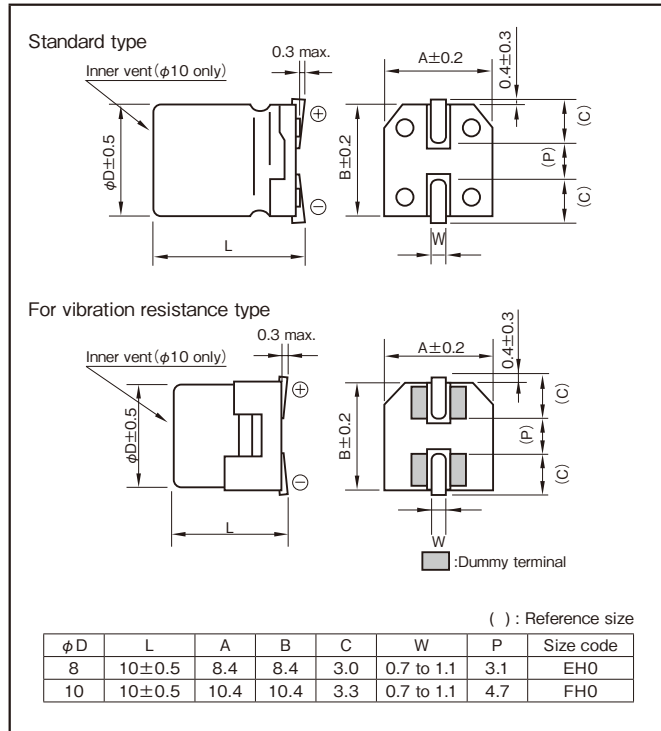
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### Specifications

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><tr><td>Rated voltage (V)</td><td>25</td><td>35</td><td>50</td><td>63</td></tr><tr><td>tan δ (max.)</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.08</td></tr></table>					Rated voltage (V)	25	35	50	63	tan δ (max.)	0.14	0.12	0.10	0.08
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(20°C, 120Hz)															
Characteristics at high and low temperature	Impedance ratio (max.)	Z-25°C / Z+20°C		1.5											
		Z-55°C / Z+20°C		2.0											
(100kHz)															
Endurance (150°C) (Applied ripple current)	Test time		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												
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)				
25 to 63	0.10	0.30	0.60	1

### Product code system (\*For general product)

φ8 , φ10(example : 25V220μF, Standard type)

RS*	HVY	221	M	1T	EH0	002	
Category code	Series code	capacitance code	Cap tol. code	Voltage code	Size code	Taping and packing code	Additional code

- For vibration resistance type should change Series code "HVY" into "HTY".
- For details, refer to the various "Product Code System" pages.

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### Standard Ratings

Rated voltage (V) Rated capacitance (μF)	Item	25 (1T)			35 (1G)			50 (1U)			63 (4E)		
		Case φD×L (mm)	ESR (mΩ max.)	Rated ripple current (mA <sub>rms</sub> )	Case φD×L (mm)	ESR (mΩ max.)	Rated ripple current (mA <sub>rms</sub> )	Case φD×L (mm)	ESR (mΩ max.)	Rated ripple current (mA <sub>rms</sub> )	Case φD×L (mm)	ESR (mΩ max.)	Rated ripple current (mA <sub>rms</sub> )
33	—	—	—	—	—	—	—	—	—	—	8×10	30	610
56	—	—	—	—	—	—	—	—	—	—	10×10	28	710
68	—	—	—	—	—	—	—	8×10	30	660	—	—	—
100	—	—	—	—	—	—	—	10×10	28	800	—	—	—
150	—	—	—	—	8×10	22	710	—	—	—	—	—	—
220	—	8×10	22	740	—	—	—	—	—	—	—	—	—
270	—	—	—	—	10×10	20	830	—	—	—	—	—	—
330	—	10×10	20	850	—	—	—	—	—	—	—	—	—

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