

## HU Series

Useful of 2,000 hours at 105°C

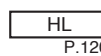
- Conform RoHS

### Features

- The HU type is the radial type products of 2,000 hours.



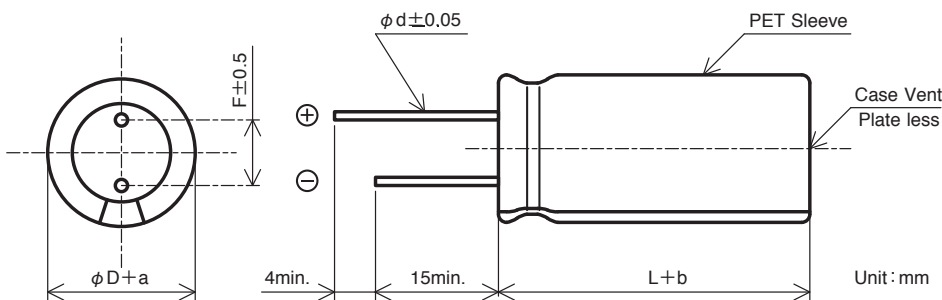
→  
Long-life



### Product Specifications

Items	Specifications
Temperature range	-25°C ~ +105°C
Rated voltage	200 ~ 450V.DC
Capacitance tolerance	±20% (20°C, 120Hz)
Leakage current	Not more than 0.04CV + 100 (µA) (20°C, after 2 minutes) [C = nominal capacitance (µF), V = rated voltage (V)]
Dissipation factor	Less than the value specified in the standard products table. (20°C, 120Hz)
Permissible ripple current	As specified in the standard product table. (105°C, 120Hz)
Endurance	After the rated voltage with specified ripple current is applied at 105°C for 2,000 hours : Capacitance change : Within ±20% of the initial value measured. Dissipation factor : 200% or less than the initial value specified. Leakage current : Less than or equal to the initial value specified.
Shelf life	The following specification shall be meet when the capacitor are restored to 20°C after storage of 1,000 hours at 105°C with no voltage applied. Before the measurement, the capacitor shall be preconditioned by applying the voltage treatment according to Item 4.1 of JIS C 5101-4. Capacitance change : Within ±20% of the initial value measured. Dissipation factor : 200% or less than the initial value specified. Leakage current : 200% or less than the initial value specified.
Others	JIS C 5101-4

### Dimensions



$\phi D$	$\phi d$	F	a	b
10	0.6	5.0	0.5MAX	2.0MAX
12.5	0.6	5.0	0.5MAX	2.0MAX
16	0.8	7.5	0.5MAX	2.0MAX
18	0.8	7.5	0.5MAX	2.0MAX

### Ripple current correction coefficient

Frequency (Hz)	50/60	120	1K	10K	≥100K
Correction coefficient	0.80	1.00	1.55	1.85	2.00

### Product code

(Example) HU series 450V 68µF ±20%

**HU 2W 680 M L V 25 EC**

- HU: Type of series
- 2W: Rated voltage code
- 680: Capacitance code
- M: Capacitance tolerance code
- L: Case dia code
- V: Case height code
- 25: Environmental code
- EC: Terminal code

Refer to page 115 for other terminal shape available on request.

Standard Products Table

Rated Voltage (V.DC)	Capacitance ( $\mu$ F)	Case size $\phi$ D $\times$ L (mm)	$\tan \delta$ 20°C, 120Hz	Ripple current (Arms) 105°C, 120Hz	Product name
200	100	12.5 $\times$ 25	0.20	0.62	HU2D101MLS25EC
	220	16 $\times$ 31.5	0.20	1.05	HU2D221MLU315EC
	330	16 $\times$ 40	0.20	1.43	HU2D331MLU40EC
		18 $\times$ 31.5	0.20	1.43	HU2D331MLV315EC
	470	16 $\times$ 50	0.20	1.75	HU2D471MLU50EC
		18 $\times$ 40	0.20	1.75	HU2D471MLV40EC
220	560	18 $\times$ 50	0.20	1.93	HU2D561MLV50EC
	100	16 $\times$ 20	0.20	0.63	HU220V101MLU20EC
	220	16 $\times$ 31.5	0.20	1.10	HU220V221MLU315EC
	330	16 $\times$ 45	0.20	1.45	HU220V331MLU45EC
		18 $\times$ 35.5	0.20	1.45	HU220V331MLV355EC
470	18 $\times$ 45	0.20	1.78	HU220V471MLV45EC	
250	100	16 $\times$ 25	0.20	0.66	HU2E101MLU25EC
	220	16 $\times$ 35.5	0.20	1.15	HU2E221MLU355EC
		18 $\times$ 31.5	0.20	1.15	HU2E221MLV315EC
	330	16 $\times$ 50	0.20	1.48	HU2E331MLU50EC
		18 $\times$ 40	0.20	1.48	HU2E331MLV40EC
	470	18 $\times$ 50	0.20	1.83	HU2E471MLV50EC
350	33	12.5 $\times$ 20	0.24	0.33	HU2V330MLS20EC
	47	12.5 $\times$ 25	0.24	0.41	HU2V470MLS25EC
	100	16 $\times$ 31.5	0.24	0.77	HU2V101MLU315EC
		18 $\times$ 25	0.24	0.77	HU2V101MLV25EC
	220	16 $\times$ 50	0.24	1.22	HU2V221MLU50EC
		18 $\times$ 40	0.24	1.22	HU2V221MLV40EC
400	10	10 $\times$ 16	0.24	0.12	HU2G100MLR16EC
	15	10 $\times$ 20	0.24	0.15	HU2G150MLR20EC
	27	12.5 $\times$ 20	0.24	0.26	HU2G270MLS20EC
	33	12.5 $\times$ 25	0.24	0.30	HU2G330MLS25EC
	47	16 $\times$ 20	0.24	0.45	HU2G470MLU20EC
	56	16 $\times$ 25	0.24	0.50	HU2G560MLU25EC
		18 $\times$ 20	0.24	0.50	HU2G560MLV20EC
	68	16 $\times$ 25	0.24	0.59	HU2G680MLU25EC
	82	16 $\times$ 31.5	0.24	0.67	HU2G820MLU315EC
		18 $\times$ 25	0.24	0.67	HU2G820MLV25EC
	100	16 $\times$ 35.5	0.24	0.78	HU2G101MLU355EC
		18 $\times$ 31.5	0.24	0.78	HU2G101MLV315EC
	120	16 $\times$ 40	0.24	0.85	HU2G121MLU40EC
		18 $\times$ 31.5	0.24	0.85	HU2G121MLV315EC
	150	16 $\times$ 45	0.24	0.98	HU2G151MLU45EC
		18 $\times$ 35.5	0.24	0.98	HU2G151MLV355EC
	180	16 $\times$ 50	0.24	1.08	HU2G181MLU50EC
		18 $\times$ 40	0.24	1.08	HU2G181MLV40EC
220	18 $\times$ 50	0.24	1.22	HU2G221MLV50EC	

# RADIAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

Standard Products Table

Rated Voltage (V.DC)	Capacitance ( $\mu F$ )	Case size $\phi D \times L$ (mm)	$\tan \delta$ 20°C, 120Hz	Ripple current (Arms) 105°C, 120Hz	Product name
420	10	10×16	0.24	0.13	HU420V100MLR16EC
	15	10×20	0.24	0.18	HU420V150MLR20EC
	22	12.5×20	0.24	0.27	HU420V220MLS20EC
	27	12.5×25	0.24	0.30	HU420V270MLS25EC
	33	12.5×25	0.24	0.37	HU420V330MLS25EC
	39	16×20	0.24	0.40	HU420V390MLU20EC
	47	16×20	0.24	0.47	HU420V470MLU20EC
	56	16×25	0.24	0.65	HU420V560MLU25EC
		18×20	0.24	0.65	HU420V560MLV20EC
	68	16×25	0.24	0.72	HU420V680MLU25EC
	82	16×31.5	0.24	0.72	HU420V820MLU315EC
		18×25	0.24	0.72	HU420V820MLV25EC
	100	16×35.5	0.24	0.83	HU420V101MLU355EC
		18×31.5	0.24	0.83	HU420V101MLV315EC
	120	16×40	0.24	0.93	HU420V121MLU40EC
		18×35.5	0.24	0.93	HU420V121MLV355EC
150	16×45	0.24	1.05	HU420V151MLU45EC	
	18×40	0.24	1.05	HU420V151MLV40EC	
180	18×45	0.24	1.15	HU420V181MLV45EC	
450	8.2	10×16	0.24	0.12	HU2W8R2MLR16EC
	10	10×20	0.24	0.13	HU2W100MLR20EC
	22	12.5×20	0.24	0.25	HU2W220MLS20EC
	27	12.5×25	0.24	0.29	HU2W270MLS25EC
	33	12.5×25	0.24	0.39	HU2W330MLS25EC
	47	18×20	0.24	0.51	HU2W470MLV20EC
	56	16×25	0.24	0.57	HU2W560MLU25EC
		18×20	0.24	0.57	HU2W560MLV20EC
	68	18×25	0.24	0.67	HU2W680MLV25EC
	82	16×31.5	0.24	0.75	HU2W820MLU315EC
	100	16×35.5	0.24	0.84	HU2W101MLU355EC
		18×31.5	0.24	0.84	HU2W101MLV315EC
	120	16×45	0.24	0.94	HU2W121MLU45EC
	150	16×50	0.24	1.05	HU2W151MLU50EC
		18×40	0.24	1.05	HU2W151MLV40EC
	180	18×45	0.24	1.10	HU2W181MLV45EC

ALUMINUM ELECTROLYTIC CAPACITORS