

SNAP MOUNT TYPE ALUMINUM ELECTROLYTIC CAPACITORS

New

HU Series

Useful of 4,000 hours at 105°C (Warranty of 2,000 hours at 105°C)

• Conform RoHS

Features

• The size is reduced by 10 to 16% of conventional HU5 through development of etched foil technology.



Product Specifications

Items	Specifications
Temperature range	-40°C ~ +105°C (200, 250V.DC) -25°C ~ +105°C (400 ~450V.DC)
Rated voltage	200 ~ 450V.DC
Capacitance tolerance	±20% (20°C, 120Hz)
Leakage current	0.02CV (µA) or 3mA, whichever is smaller or less [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 products table. (105°C, 120Hz)
High temp. Load life test	After 105°C, 2000h, rated voltage with specified ripple current application Capacitance variation : Initial value ±20% Dissipation factor : 200% of less of specified initial value Leakage current : Not greater than the specified initial value
Others	JIS C 5101-4.

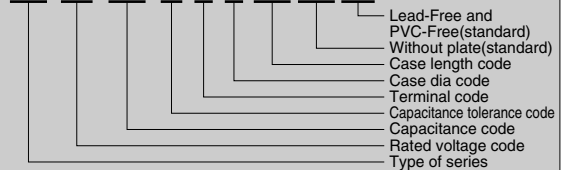
Ripple current correction coefficient

Temperature (°C)	60	70	85	105	
Correction coefficient	1.9	1.7	1.4	1.0	
Frequency (Hz)	50/60	120	300	1k	≥10K
Correction coefficient	0.7	1.0	1.1	1.3	1.4

A continuous load should be avoided over 10 A at the terminal in accordance with the permissible current.

Product code : (Example) HU Series 400V 330µF ±20%

HU 2G 331 M C A S2 WPEC



Case dia code

øD	Code
20	W
22	X
25	Y
30	Z
35	A

Refer to page (85) for other terminal shape available on request

ALUMINUM ELECTROLYTIC CAPACITORS

Standard Products Table

Rated Voltage Code (Surge Voltage) (V. DC)	Capacitance (µF)	Case size øDXL(mm)	tanδ 20°C,120Hz	Ripple current (Arms) 105°C,120Hz	ESR(typ.) 20°C,100Hz (mΩ)	Product name
200 2D (250)	330	22×25	0.15	1.07	330	HU2D331MCXS2WPEC
	390	22×30	0.15	1.24	280	HU2D391MCXS3WPEC
	470	25×25	0.15	1.31	240	HU2D471MCYS2WPEC
	560	22×35	0.15	1.58	200	HU2D561MCXS4WPEC
		25×30	0.15	1.52	200	HU2D561MCYS3WPEC
	680	22×40	0.15	1.83	160	HU2D681MCXS5WPEC
		25×35	0.15	1.77	160	HU2D681MCYS4WPEC
		30×25	0.15	1.60	160	HU2D681MCZS2WPEC
	820	22×50	0.15	2.20	140	HU2D821MCXS7WPEC
		25×40	0.15	2.05	140	HU2D821MCYS5WPEC
		30×30	0.15	1.86	140	HU2D821MCZS3WPEC
		35×25	0.15	1.52	140	HU2D821MCAS2WPEC
	1,000	25×45	0.15	2.37	110	HU2D102MCYS6WPEC
		30×35	0.15	2.17	110	HU2D102MCZS4WPEC
	1,200	25×50	0.15	2.70	100	HU2D122MCYS7WPEC
		30×40	0.15	2.49	100	HU2D122MCZS5WPEC
		35×30	0.15	1.94	100	HU2D122MCAS3WPEC
	1,500	30×45	0.15	2.91	80	HU2D152MCZS6WPEC
		35×35	0.15	2.29	80	HU2D152MCAS4WPEC
	1,800	30×50	0.15	3.32	70	HU2D182MCZS7WPEC
		35×40	0.15	2.62	70	HU2D182MCAS5WPEC
	2,200	35×45	0.15	3.02	50	HU2D222MCAS6WPEC

Rated Voltage Code (Surge Voltage) (V. DC)	Capacitance (µF)	Case size øDXL(mm)	tanδ 20°C,120Hz	Ripple current (Arms) 105°C,120Hz	ESR(typ.) 20°C,100Hz (mΩ)	Product name
250 2E (300)	220	22×25	0.15	0.95	440	HU2E221MCXS2WPEC
	330	22×30	0.15	1.24	290	HU2E331MCXS3WPEC
		25×25	0.15	1.19	290	HU2E331MCYS2WPEC
	390	22×35	0.15	1.42	250	HU2E391MCXS4WPEC
		25×30	0.15	1.37	250	HU2E391MCYS3WPEC
	470	22×40	0.15	1.65	210	HU2E471MCXS5WPEC
		30×25	0.15	1.42	210	HU2E471MCZS2WPEC
		22×45	0.15	1.88	180	HU2E561MCXS6WPEC
	560	25×35	0.15	1.74	180	HU2E561MCYS4WPEC
		25×45	0.15	2.11	150	HU2E681MCYS6WPEC
	680	30×30	0.15	1.82	150	HU2E681MCZS3WPEC
		35×25	0.15	1.52	150	HU2E681MCAS2WPEC
		25×50	0.15	2.41	120	HU2E821MCYS7WPEC
	820	30×35	0.15	2.10	120	HU2E821MCZS4WPEC
		35×30	0.15	1.76	120	HU2E821MCAS3WPEC
	1,000	30×40	0.15	2.43	100	HU2E102MCZS5WPEC
		35×35	0.15	2.04	100	HU2E102MCAS4WPEC
	1,200	30×50	0.15	2.89	80	HU2E122MCZS7WPEC
		35×40	0.15	2.34	80	HU2E122MCAS5WPEC
	1,500	35×45	0.15	2.73	70	HU2E152MCAS6WPEC
	1,800	35×50	0.15	3.11	60	HU2E182MCAS7WPEC

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400 2G (450)	120	22×25	0.20	0.77	800	HU2G121MCXS2WPEC
	150	22×30	0.20	0.91	640	HU2G151MCXS3WPEC
	180	22×35	0.20	1.05	540	HU2G181MCXS4WPEC
	220	22×40	0.20	1.21	440	HU2G221MCXS5WPEC
		25×30	0.20	1.15	440	HU2G221MCYS3WPEC
	270	22×45	0.20	1.39	360	HU2G271MCXS6WPEC
		25×35	0.20	1.34	360	HU2G271MCYS4WPEC
	330	22×50	0.20	1.59	290	HU2G331MCXS7WPEC
		25×40	0.20	1.54	290	HU2G331MCYS5WPEC
		30×30	0.20	1.49	290	HU2G331MCZS3WPEC
		35×25	0.20	1.46	290	HU2G331MCAS2WPEC
	390	25×45	0.20	1.74	250	HU2G391MCYS6WPEC
		30×35	0.20	1.69	250	HU2G391MCZS4WPEC
	470	30×40	0.20	1.93	210	HU2G471MCZS5WPEC
		35×30	0.20	1.83	210	HU2G471MCAS3WPEC
	560	30×45	0.20	2.18	180	HU2G561MCZS6WPEC
		35×35	0.20	2.09	180	HU2G561MCAS4WPEC
	680	30×50	0.20	2.48	150	HU2G681MCZS7WPEC
		35×40	0.20	2.39	150	HU2G681MCAS5WPEC
	820	35×45	0.20	2.71	120	HU2G821MCAS6WPEC
420 420V (470)	100	22×25	0.20	0.70	1020	HU420V101MCXS2WPEC
	150	22×30	0.20	0.91	680	HU420V151MCXS3WPEC
		25×25	0.20	0.90	680	HU420V151MCYS2WPEC
	180	22×35	0.20	1.05	570	HU420V181MCXS4WPEC
		25×30	0.20	1.04	570	HU420V181MCYS3WPEC
	220	22×40	0.20	1.21	470	HU420V221MCXS5WPEC
		25×35	0.20	1.21	470	HU420V221MCYS4WPEC
		30×25	0.20	1.15	470	HU420V221MCZS2WPEC
	270	22×50	0.20	1.44	380	HU420V271MCXS7WPEC
		25×40	0.20	1.39	380	HU420V271MCYS5WPEC
		30×30	0.20	1.34	380	HU420V271MCZS3WPEC
		35×25	0.20	1.32	380	HU420V271MCAS2WPEC
	330	25×45	0.20	1.60	310	HU420V331MCYS6WPEC
		30×35	0.20	1.56	310	HU420V331MCZS4WPEC
	390	25×50	0.20	1.79	270	HU420V391MCYS7WPEC
		30×40	0.20	1.76	270	HU420V391MCZS5WPEC
	470	35×30	0.20	1.67	270	HU420V391MCAS3WPEC
		30×45	0.20	2.00	220	HU420V471MCZS6WPEC
	560	35×35	0.20	1.91	220	HU420V471MCAS4WPEC
		30×50	0.20	2.25	190	HU420V561MCZS7WPEC
680	35×40	0.20	2.17	190	HU420V561MCAS5WPEC	
	35×45	0.20	2.47	150	HU420V681MCAS6WPEC	
820	35×50	0.20	2.79	130	HU420V821MCAS7WPEC	

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450 2W (500)	100	22×25	0.20	0.70	1020	HU2W101MCXS2WPEC
	120	22×30	0.20	0.82	850	HU2W121MCXS3WPEC
		25×25	0.20	0.81	850	HU2W121MCYS2WPEC
	150	22×35	0.20	0.96	680	HU2W151MCXS4WPEC
		22×40	0.20	1.09	570	HU2W181MCXS5WPEC
	180	25×30	0.20	1.04	570	HU2W181MCYS3WPEC
		30×25	0.20	1.04	570	HU2W181MCZS2WPEC
		22×45	0.20	1.25	470	HU2W221MCXS6WPEC
	220	25×35	0.20	1.21	470	HU2W221MCYS4WPEC
		25×40	0.20	1.39	380	HU2W271MCYS5WPEC
	270	30×30	0.20	1.34	380	HU2W271MCZS3WPEC
		35×25	0.20	1.32	380	HU2W271MCAS2WPEC
	330	25×50	0.20	1.65	310	HU2W331MCYS7WPEC
		30×35	0.20	1.56	310	HU2W331MCZS4WPEC
		35×30	0.20	1.53	310	HU2W331MCAS3WPEC
	390	30×40	0.20	1.76	270	HU2W391MCZS5WPEC
	470	30×45	0.20	2.00	220	HU2W471MCZS6WPEC
		35×35	0.20	1.91	220	HU2W471MCAS4WPEC
	560	35×40	0.20	2.17	190	HU2W561MCAS5WPEC
	680	35×50	0.20	2.54	150	HU2W681MCAS7WPEC

Life time graph

Useful life depending on ambient temperature T_a and ripple current operating conditions I_r versus rated ripple current at 105°C, 120Hz

