

# SNAP MOUNT TYPE ALUMINUM ELECTROLYTIC CAPACITORS

## HF2 Series

Useful of 4,000 hours at 85°C (Warranty of 2,000 hours at 85°C)

• Conform RoHS

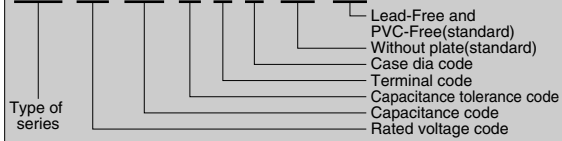
### Features

- The HF2 type is the same as the HP3 type. with 20mm height.



Product code: (Example) HF2 series 200V 150µF±20%

**HF2 2D 151 M C A WP EC**



Refer to page (97) for other terminal shape available on request

### Product Specifications

Items	Specifications
Temperature range	-40°C ~ +85°C
Rated voltage	160 ~ 450V.DC
Capacitance tolerance	±20% (20°C, 120Hz)
Leakage current	0.02CV (µA) or 3mA, whichever is smaller or less (20°C, after 5 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 products table. (85°C, 120Hz)
High temp. Load life test	After 85°C, 2000h, rated voltage with specified ripple current application Capacitance variation : Initial value ±15% Dissipation factor : 175% 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		
	Correction coefficient	1.4	1.2	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 Arms at the terminal in accordance with the permissible current.

Please consult us when the ripple voltage exceeds 70Vp-p.

### Standard Products Table

Rated Voltage Code (Surge Voltage) (V. DC)	Capacitance (µF)	Case size øDXL(mm)	tanδ 20°C,120Hz	Ripple current (Arms) 85°C,120Hz	ESR(typ.) 20°C,100Hz (mΩ)	Product name
160 2C (200)	150	22×20	0.15	0.74	955	HF22C151MCXWPEC
	220	22×20	0.15	0.98	651	HF22C221MCXWPEC
	330	30×20	0.15	1.31	434	HF22C331MCZWPEC
	470	35×20	0.15	1.47	305	HF22C471MCAWPEC
180 2P (225)	100	22×20	0.15	0.61	1226	HF22P101MCXWPEC
	150	22×20	0.15	0.74	817	HF22P151MCXWPEC
	220	22×20	0.15	0.98	557	HF22P221MCXWPEC
	330	30×20	0.15	1.31	375	HF22P331MCZWPEC
	470	35×20	0.15	1.47	265	HF22P471MCAWPEC
200 2D (250)	100	22×20	0.15	0.61	1067	HF22D101MCXWPEC
	150	35×20	0.15	0.74	711	HF22D151MCAWPEC
	220	35×20	0.15	0.98	485	HF22D221MCAWPEC
	330	35×20	0.15	1.23	325	HF22D331MCAWPEC
250 2E (300)	100	22×20	0.15	0.61	1067	HF22E101MCXWPEC
	150	25×20	0.15	0.81	711	HF22E151MCYWPEC
	220	30×20	0.15	1.07	485	HF22E221MCZWPEC
	330	35×20	0.15	1.23	325	HF22E331MCAWPEC

Rated Voltage Code (Surge Voltage) (V. DC)	Capacitance (µF)	Case size øDXL(mm)	tanδ 20°C,120Hz	Ripple current (Arms) 85°C,120Hz	ESR(typ.) 20°C,100Hz (mΩ)	Product name
350 2V (400)	68	22×20	0.15	0.53	1570	HF22V680MCXS2WPEC
	100	25×20	0.15	0.66	1070	HF22V101MCYS2WPEC
	150	30×20	0.15	0.88	720	HF22V151MCZS2WPEC
	180	35×20	0.15	1.03	600	HF22V181MCAS2WPEC
400 2G (450)	56	22×20	0.15	0.48	1910	HF22G560MCXS2WPEC
	82	25×20	0.15	0.60	1310	HF22G820MCYS2WPEC
	120	30×20	0.15	0.79	890	HF22G121MCZS2WPEC
	180	35×20	0.15	1.03	600	HF22G181MCAS2WPEC
450 2W (500)	47	22×20	0.15	0.44	2270	HF22W470MCXS2WPEC
	68	25×20	0.15	0.54	1570	HF22W680MCYS2WPEC
	100	30×20	0.15	0.72	1070	HF22W101MCZS2WPEC
	120	35×20	0.15	0.84	890	HF22W121MCAS2WPEC

### Life time graph

Useful life depending on ambient temperature  $T_a$  and ripple current operating conditions  $I_r$  versus rated ripple current at 85°C, 120Hz

