

DATASHEET

GF & HF Coin Cell Supercapacitor

Revision 2.1 June 2023

- Long lifetimes
- High operating temperature up to 85°C



Electrical Specifications

Item (condition)	Specification	
Rated Voltage	5.5V	
GF - Operating Temperature Range	-40°C to +70°C	
GF – Endurance (5.5V 70°C 1000hrs)	Final ESR ≤ 500% initial ESR	Final C ≥ 60% initial C
GF – Temperature variation (-40°C to + 70°C)	ΔC ≤ 50% of 25°C value	ΔESR ≤ 700% of 25°C value
HF - Operating Temperature Range	-40°C to +85°C	
HF – Endurance (5.5V 85°C 1000hrs)	Final ESR ≤ 500% initial ESR	Final C ≥ 70% initial C
HF – Temperature variation (-40°C to + 85°C)	ΔC ≤ 50% of 25°C value	ΔESR ≤ 700% of 25°C value

Part numbering code

x	F	N	vvv	dd	ll	S	ccc	R
Model	Coin cell	# of cells	Voltage	Diameter (mm)	Thickness (mm)	Tolerance	Capacitance (μF)	Lead format
G, H		1	5R5 = 5.5V	11 = 11.5 13 = 13.5 19 = 19 20 = 20.5	04 = 4.8 05 = 5.2 07 = 7.0 08 = 8.0 09 = 9.0 10 = 10.0	P(+80%/-20%) O(+80%/0%) V(+30%/-10%)	Two digits + number of zeros. 155 = 1500000μF = 1.5F	V, H, C refer to mechanical drawings

GF & HF Coin Cell Supercapacitor

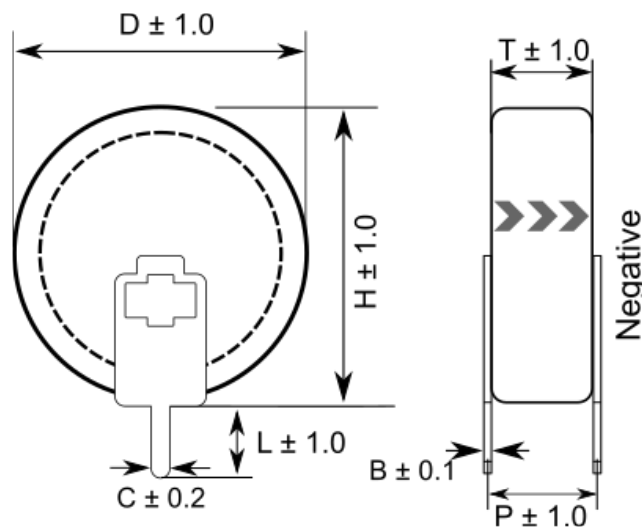
GF Product Range, V Type

Temperature Range: -40°C to +70°C

Parameters measured at 25°C

CAP-XX Part no.	Cap (F)	AC ESR Max @1kHz (Ω)	IL max @ 72Hrs (μA)	Dimensions (mm)						
				D	T	H	P	L	C	B
GF15R51105P224V	0.22	75	5	11.5	4.8	13	5	3.5	0.8	0.2
GF15R51105P334V	0.33	50	8	11.5	4.8	13	5	3.5	0.8	0.2
GF15R51105P474V	0.47	50	8	11.5	4.8	13	5	3.5	0.8	0.2
GF15R51905P105V	1	30	12	19	4.8	20.5	5	5	1	0.2
GF15R51905P155V	1.5	30	12	19	4.8	20.5	5	5	1	0.2

Mechanical drawing, all units in mm:



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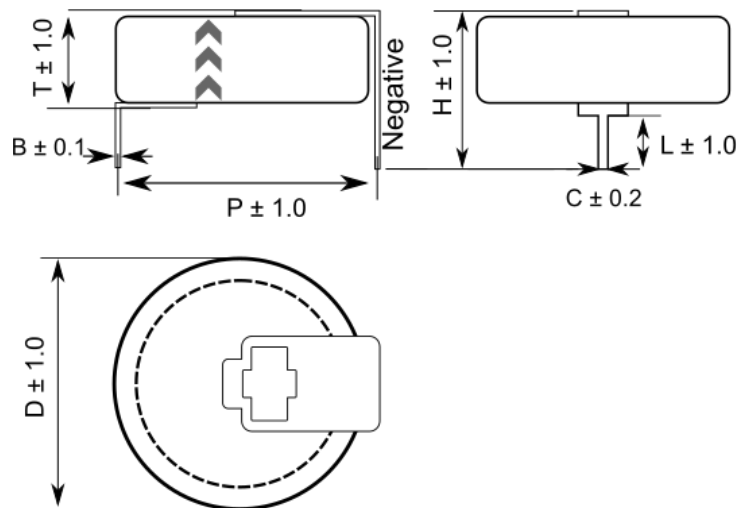
GF Product Range, H Type

Temperature Range: -40°C to +70°C

Parameters measured at 25°C

CAP-XX Part no.	Cap (F)	AC ESR Max @1kHz (Ω)	IL max @ 72Hrs (μA)	Dimensions (mm)						
				D	T	H	P	L	C	B
GF15R51105P224H	0.22	75	5	11.5	4.8	6	10	3	0.8	0.2
GF15R51105P334H	0.33	50	8	11.5	4.8	6	10	3	0.8	0.2
GF15R51105P474H	0.47	50	8	11.5	4.8	6	10	3	0.8	0.2
GF15R51905P105H	1	30	12	19	4.8	7	20	2.5	1	0.2
GF15R51905P155H	1.5	30	12	19.1	5.2	7	20	2.5	1	0.2

Mechanical drawing, all units in mm:



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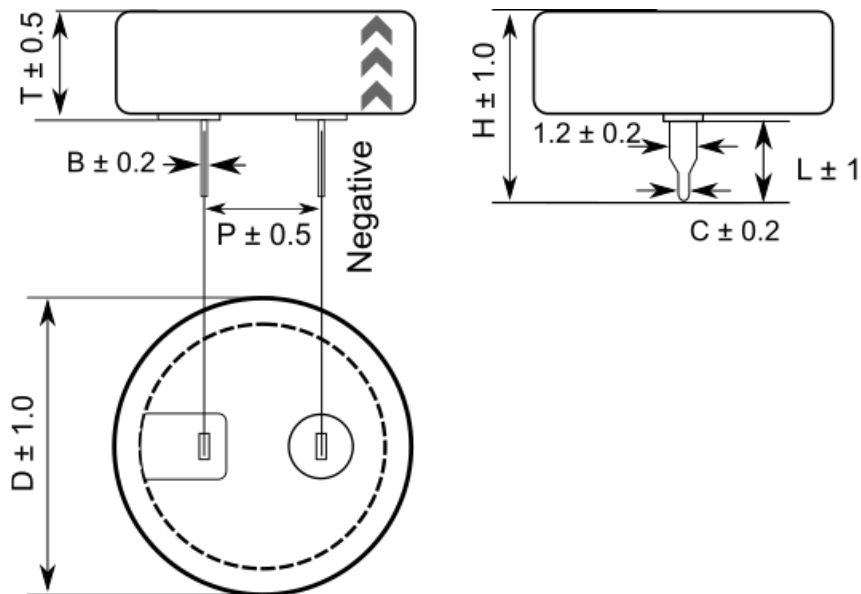
GF Product Range, C Type

Temperature Range: -40°C to +70°C

Parameters measured at 25°C

CAP-XX Part no.	Cap (F)	AC ESR Max @1kHz (Ω)	IL max @ 72Hrs (μA)	Dimensions (mm)						
				D	T	H	P	L	C	B
GF15R51307P224C	0.22	75	5	13.5	7	9.5	5	3.5	0.8	0.4
GF15R51307P334C	0.33	50	8	13.5	7	9.5	5	3.5	0.8	0.4
GF15R51307P474C	0.47	50	8	13.5	7	9.5	5	3.5	0.8	0.4
GF15R52008P105C	1	30	12	20.5	8	10.5	5	2.5	0.8	0.5
GF15R52008P155C	1.5	30	12	20.5	8	10.5	5	2.5	0.8	0.5

Mechanical drawing, all units in mm:



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HF Product Range, C Type

Temperature Range: -40°C to +85°C

Parameters measured at 25°C

CAP-XX Part no.	Cap (F)	AC ESR Max @1kHz (Ω)	IL max @ 72Hrs (μA)	Dimensions (mm)						
				D	T	H	P	L	C	B
HF15R51309P104C	0.1	75	5	13.5	9	11.5	5	2.5	0.8	0.5
HF15R51309P224C	0.22	75	5	13.5	9	11.5	5	2.5	0.8	0.5
HF15R51309P334C	0.33	50	8	13.5	9	11.5	5	2.5	0.8	0.5
HF15R52010P684C	0.68	30	15	20.5	10	12.5	5	2.5	0.8	0.5
HF15R52010P105C	1	30	15	20.5	10	12.5	5	2.5	0.8	0.5

Mechanical drawing, all units in mm:

