NPCAP™-PXH Series Upgrade!

- Super low ESR, impedance and high heat resistance have been obtained by using conductive polymer as electrolyte.
- For AI servers, GPU computing, and other high temperature applications.
- Suitable for DC-DC converters, voltage regulators and decoupling applications.
- Endurance : 125℃ 1,000 to 3,000 hours
- Rated voltage range : 2.5 to 20Vdc, Capacitance range : 22 to 1,000µF
- Case size range : φ6.3×5.8L to φ10×7.7L
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- Halogen Free

PXH
Higher temperature
PXA

◆SPECIFICATIONS

Items	Characteristics
Category Temperature Range	-55 to +125℃
Rated Voltage Range	2.5 to 20Vdc
Capacitance Tolerance	±20% (M) (at 20℃, 120Hz)
Leakage Current *Note	Shall not exceed values shown in STANDARD RATINGS. (at 20℃ after 2 minutes)
Dissipation Factor (tan δ)	0.12 max. (at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Z(-25℃)/Z(+20℃)≦1.15 Z(-55℃)/Z(+20℃)≦1.25 (at 100kHz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 1,000 hours (F80 : 3,000 hours) at 125℃.
	Appearance : No significant damage
	Capacitance change : ≦±20% of the initial value
	D.F. (tan δ) : ≦200% of the initial specified value
	ESR : ≦200% of the initial specified value
	Leakage current : ≦The initial specified value
Bias Humidity	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them to the DC rated voltage at 60℃, 90 to 95% RH for 1,000 hours.
	Appearance : No significant damage
	Capacitance change : ≦±20% of the initial value
	D.F. (tan δ) : ≦150% of the initial specified value
	ESR : ≦150% of the initial specified value
	Leakage current : ≦The initial specified value
Surge Voltage	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltage specified at 125℃ (F80 : 105℃) for 30 seconds through a protective resistor (R=1kΩ) and discharge for 5 minutes and 30 seconds.

Rated voltage (Vdc)	2.5	4.0	6.3	10	16	20
Surge voltage (Vdc)	2.9	4.6	7.2	12	18	23

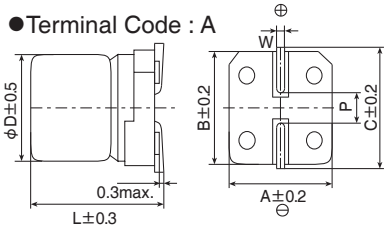
Appearance	No significant damage
Capacitance change	≦±20% of the initial value
D.F. (tan δ)	≦150% of the initial specified value
ESR	≦150% of the initial specified value
Leakage current	≦The initial specified value

Soldering Heat	The following specifications shall be satisfied when the solder temperature is reduced back to 20°C after soldering has been performed under the recommended soldering conditions.
Appearance	No significant damage
Capacitance value	Within the specified tolerance range
D.F. (tan δ)	≦The initial specified value
ESR	≦The initial specified value
Leakage current	≦The initial specified value (Voltage treatment)

*Note : If any doubt arises, measure the leakage current after the following voltage treatment.
Voltage treatment : DC rated voltage is applied to the capacitors for 120 minutes at 125℃.

◆DIMENSIONS [mm]

●Terminal Code : A



Size code	φD	L	A	B	C	W	P
F61	6.3	5.8	6.6	6.6	7.2	0.5 to 0.8	1.9
F80	6.3	7.7	6.6	6.6	7.2	0.5 to 0.8	1.9
H70	8	6.7	8.3	8.3	9.0	0.7 to 1.1	3.1
J80	10	7.7	10.3	10.3	11.0	0.7 to 1.1	4.5

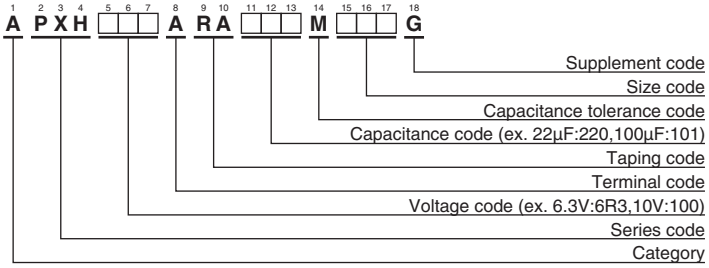
* Please inquire about the vibration resistant structure.

◆MARKING

EX) 20V22µF

NPCAP™-PXH Upgrade! Series

◆PART NUMBERING SYSTEM



Please refer to "Product code guide (conductive polymer type)"

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Size code	Leakage current (μA max./after 2min.)	ESR (mΩ max./20℃, 100k to 300kHz)	Rated ripple current (mArms/100kHz)		Part No.
					-55℃≦Tx≦+105℃*1	+105℃＜Tx≦+125℃*1	
2.5	220	F61	110	35	2,500	770	APXH2R5ARA221MF61G
	560	H70	280	30	3,100	960	APXH2R5ARA561MH70G
	820	**F80**	**1,020**	**7**	**5,000**	**2,400**	**APXH2R5ARA821MF80G**
	1,000	J80	500	25	3,700	1,100	APXH2R5ARA102MJ80G
4	150	F61	120	35	2,450	770	APXH4R0ARA151MF61G
	220	H70	176	30	3,020	960	APXH4R0ARA221MH70G
	680	J80	544	25	3,700	1,100	APXH4R0ARA681MJ80G
6.3	82	F61	103	40	2,400	720	APXH6R3ARA820MF61G
	100	F61	126	40	2,400	720	APXH6R3ARA101MF61G
	150	H70	189	30	3,020	960	APXH6R3ARA151MH70G
	220	H70	277	30	3,020	960	APXH6R3ARA221MH70G
	470	J80	592	25	3,700	1,100	APXH6R3ARA471MJ80G
10	56	F61	112	45	2,250	680	APXH100ARA560MF61G
	120	H70	240	35	2,800	880	APXH100ARA121MH70G
	150	H70	300	35	2,800	880	APXH100ARA151MH70G
	330	J80	660	30	3,700	1,010	APXH100ARA331MJ80G
16	39	F61	124	50	2,050	650	APXH160ARA390MF61G
	82	H70	262	40	2,700	830	APXH160ARA820MH70G
	150	J80	480	35	3,020	930	APXH160ARA151MJ80G
	180	J80	576	35	3,020	930	APXH160ARA181MJ80G
	270	**F80**	**864**	**13**	**4,460**	**2,200**	**APXH160ARA271MF80G**
20	22	F61	88.0	60	1,650	590	APXH200ARA220MF61G
	47	H70	188	45	2,000	780	APXH200ARA470MH70G
	82	J80	328	45	2,400	820	APXH200ARA820MJ80G

*1 Tx : Ambient temperature (℃)
New products are indicated in red text.

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Frequency(Hz)	120	1k	10k	50k	100k to 500k
2.5 to 6.3V_{dc}	0.05	0.30	0.55	0.70	1.00
10 to 20V_{dc}	0.05	0.25	0.55	0.55	1.00

■ Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.

■ Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.

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■ The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.
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The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products

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In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

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