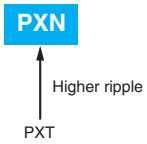
NPCAP™-PXN Series

- Super low ESR, impedance and high heat resistance have been obtained by using conductive polymer as electrolyte.
- High moisture resistance, Bias Humidity: 1,000 hours at 85℃, 85%RH
- Rated voltage range: 2.5 to 16Vdc, Capacitance range: 56～1,200μF
- Suitable for DC-DC converters, voltage regulators and decoupling applications used on computer motherboards etc.
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- Halogen Free
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.



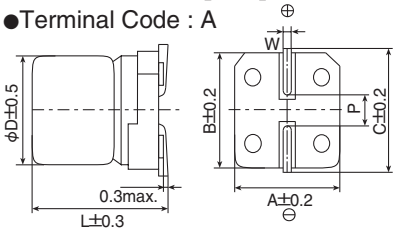
◆SPECIFICATIONS

Items	Characteristics
Category Temperature Range	-55 to +105℃
Rated Voltage Range	2.5 to 16Vdc
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 5,000 hours at 105℃.
	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
Bias Humidity	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them to the DC rated voltage at 85℃85% RH for 1,000 hours.
	Appearance: No significant damage
	Capacitance change: ≦±30% 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
Surge Voltage	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltage specified at 105℃ for 30 seconds through a protective resistor(R=1kΩ) and discharge for 5 minutes 30 seconds.
	Rated voltage (Vdc): 2.5 / 6.3 / 10 / 16
	Surge voltage (Vdc): 2.9 / 7.2 / 12 / 18
	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 to measure dip resistance 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 105℃.

◆DIMENSIONS [mm]

●Terminal Code : A



Size Code	φD	L	A	B	C	W	P
E61	5	5.8	5.3	5.3	5.9	0.5 to 0.8	1.4
F61	6.3	5.8	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

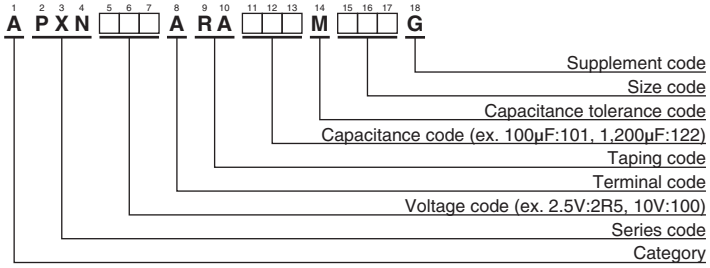
◆MARKING

EX) 6.3V220μF

PXN series is a conductive polymer aluminum solid capacitor. All conductive polymer aluminum solid capacitors, including the PXN series may temporarily exhibit increased leakage current due to heat stress during the reflow soldering process.
However, applying stepped voltage under the category temperature range gradually decreases the increased leakage current to normal levels. The speed or recovery time that leakage current decreases by self-healing depends on the temperature and voltage: (The closer to category upper limit temperature and rated voltage, the more rapid the leakage current decrease).
Conductive polymer aluminum solid capacitors do not utilize liquid electrolyte. Therefore it takes a longer period of time to accomplish self-healing than aluminum electrolytic capacitors that have liquid electrolyte impregnation.

NPCAP™-PXN 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/105℃, 100kHz)	Part No.
2.5	330	E61	700	30	2,500	APXN2R5ARA331ME61G
	560	F61	700	25	2,800	APXN2R5ARA561MF61G
6.3	220	E61	700	30	2,500	APXN6R3ARA221ME61G
	330	F61	700	25	2,800	APXN6R3ARA331MF61G
	560	H70	705	20	3,500	APXN6R3ARA561MH70G
	1,200	J80	1,510	20	3,500	APXN6R3ARA122MJ80G
10	120	E61	700	35	2,000	APXN100ARA121ME61G
	180	F61	700	30	2,500	APXN100ARA181MF61G
	270	H70	700	25	3,300	APXN100ARA271MH70G
	560	J80	1,120	25	3,400	APXN100ARA561MJ80G
16	56	E61	700	35	2,000	APXN160ARA560ME61G
	100	F61	700	30	2,500	APXN160ARA101MF61G
	150	H70	700	25	3,300	APXN160ARA151MH70G
	330	J80	1,050	25	3,400	APXN160ARA331MJ80G

◆RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Frequency(Hz)	120	1k	10k	50k	100k to 500k
SMD type	0.05	0.30	0.55	0.70	1.00

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■ 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.

■ The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.

■ 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.
Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.

■ We strongly recommend our customers to purchase Nippon Chemi-Con products only through our official sales channels. We assume no responsibility for any defects or damages caused by using products purchased from outside our official sales channel or of counterfeit goods. In addition, we will ask the customer to pay the investigation cost for products purchased outside our official sales channel.

■ We reserve the right to discontinue production and delivery of products. We do not guarantee that all the products included in this catalog will be available in the future.
The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products

■ We continually strive to improve the quality and reliability of our products, but in any case that our product does not meet our published specifications, please stop using it promptly and contact us immediately. As for compensation for non-conforming goods delivered by Chemi-Con, we will limit it only to goods found in non-compliance of our published specifications. This may be accomplished by a no cost replacement of non-conforming individual products, a credit of the piece price paid per each individual non-conforming product, or in other ways deemed necessary.
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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