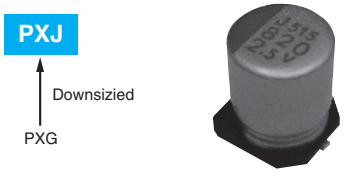
# NPCAP™-PXJ Series

- Super low ESR, impedance and high heat resistance have been obtained by using conductive polymer as electrolyte.
- Rated voltage range : 2.5 to 25Vdc, Capacitance range : 56 to 1,200µF
- Case size range : φ6.3×5.8L to φ8×6.7L
- 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






## ◆SPECIFICATIONS

| Items | Characteristics |
|---|---|
| **Category Temperature Range** | -55 to +105℃ |
| **Rated Voltage Range** | 2.5 to 25Vdc |
| **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<br>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 15,000 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 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 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 | 20 | 25 |
|---|---|---|---|---|---|---|
| Surge voltage (Vdc) | 2.9 | 7.2 | 12 | 18 | 23 | 29 |

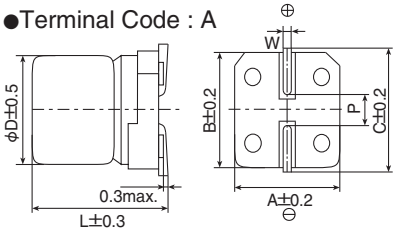
| | |
|---|---|
| Appearance | No significant damage |
| Capacitance change | ≦±20% of the initial value |
| D.F. (tan δ ) | ≦150% of the initial specified value |
| ESR | ≦150% of the initial specified value |
| Leakage current | ≦The initial specified value |

| | |
|---|---|
| **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 105℃.

## ◆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 |

## ◆MARKING

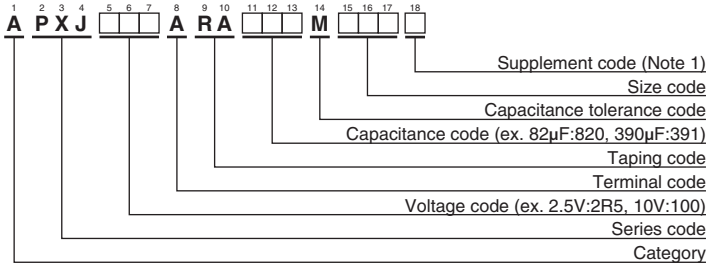
EX) 2.5V820µF




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# NPCAP™-PXJ Series

## ◆PART NUMBERING SYSTEM




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

(Note1) :PXJ series, 16V270μF (ESR 10mΩ max.) has supplement code "J", and (ESR 8mΩ max.) has supplement code "X". Terminal and terminal plating are the same as all other in PXJ series.

## ◆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 | 820 | F61 | 1,020 | 10 | 4,900 | APXJ2R5ARA821MF61G |
| | 820 | F80 | 1,020 | 7 | 5,000 | APXJ2R5ARA821MF80G |
| | 1,200 | H70 | 1,500 | 10 | 4,500 | APXJ2R5ARA122MH70G |
| 6.3 | 390 | F61 | 1,220 | 10 | 4,900 | APXJ6R3ARA391MF61G |
| | 560 | F80 | 1,760 | 8 | 5,000 | APXJ6R3ARA561MF80G |
| | 680 | H70 | 2,140 | 10 | 4,500 | APXJ6R3ARA681MH70G |
| 10 | 270 | F61 | 1,350 | 15 | 4,000 | APXJ100ARA271MF61G |
| | 390 | F80 | 1,950 | 13 | 4,460 | APXJ100ARA391MF80G |
| | 470 | H70 | 2,350 | 15 | 4,000 | APXJ100ARA471MH70G |
| 16 | 220 | F61 | 704 | 20 | 3,500 | APXJ160ARA221MF61G |
| | 270 | F80 | 864 | 8 | 5,800 | APXJ160ARA271MF80X |
| | 270 | F80 | 864 | 10 | 5,080 | APXJ160ARA271MF80J |
| | 270 | F80 | 864 | 13 | 4,460 | APXJ160ARA271MF80G |
| | 390 | H70 | 1,240 | 25 | 3,600 | APXJ160ARA391MH70G |
| 20 | 150 | F61 | 600 | 23 | 3,300 | APXJ200ARA151MF61G |
| | 150 | F80 | 600 | 18 | 3,790 | APXJ200ARA151MF80G |
| | 220 | H70 | 880 | 28 | 3,300 | APXJ200ARA221MH70G |
| 25 | 56 | F61 | 280 | 28 | 3,000 | APXJ250ARA560MF61G |
| | 82 | F80 | 410 | 28 | 3,040 | APXJ250ARA820MF80G |
| | 120 | H70 | 600 | 38 | 3,200 | APXJ250ARA121MH70G |

## ◆RATED RIPPLE CURRENT MULTIPLIERS

❶Frequency Multipliers

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

Product specifications in this catalog are subject to change without notice.Request our product specifications before purchase and/or use. Please use our products based on the information contained in this catalog and product specifications.

■ 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.
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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.

Part Numbering System
Part Numbering System (Appendix)
Standardization
Available Items by Manufacturing Locations
Environmental Measures
Technical Note
Precautions and Guidelines
Recommended Soldering Conditions
Taping, Lead-preforming, Terminal and Packaging Options

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