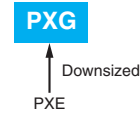


NPCAP™-PXG Series *Upgrade!*

- Super low ESR, high ripple current capability
- Rated voltage range : 16 to 25V<sub>dc</sub>, Capacitance range : 22 to 1,000μF
- Case size : φ 5×5.8L to φ 10×12.2L
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- Halogen Free



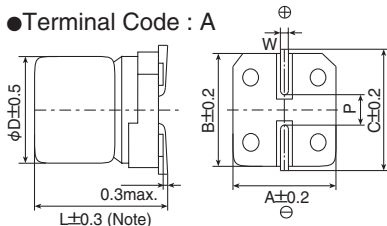
◆ SPECIFICATIONS

Items	Characteristics																		
Category																			
Temperature Range	-55 to +105°C																		
Rated Voltage Range	16 to 25V <sub>dc</sub>																		
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)																		
Leakage Current	Shall not exceed values shown in STANDARD RATINGS. (at 20°C after 2 minutes)																		
*Note																			
Dissipation Factor (tan δ)	0.12 max. (at 20°C, 120Hz)																		
Low Temperature Characteristics (Max. Impedance Ratio)	Z(-25°C)/Z(+20°C) ≤ 1.15 Z(-55°C)/Z(+20°C) ≤ 1.25 (at 100kHz)																		
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 15,000 hours (F46 : 3,000 hours) at 105°C. <table border="1"> <tr><td>Appearance</td><td>No significant damage</td></tr> <tr><td>Capacitance change</td><td>≤ ±20% of the initial value</td></tr> <tr><td>D.F. (tan δ)</td><td>≤ 150% of the initial specified value</td></tr> <tr><td>ESR</td><td>≤ 150% of the initial specified value</td></tr> <tr><td>Leakage current</td><td>≤ The initial specified value</td></tr> </table>	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								
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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°C after subjecting them to the DC rated voltage at 60°C, 90 to 95% RH for 1,000 hours (F46 : 500 hours). <table border="1"> <tr><td>Appearance</td><td>No significant damage</td></tr> <tr><td>Capacitance change</td><td>≤ ±20% of the initial value</td></tr> <tr><td>D.F. (tan δ)</td><td>≤ 150% of the initial specified value</td></tr> <tr><td>ESR</td><td>≤ 150% of the initial specified value</td></tr> <tr><td>Leakage current</td><td>≤ The initial specified value</td></tr> </table>	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								
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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°C for 30 seconds through a protective resistor(R=1kΩ) and discharge for 5 minutes 30 seconds. <table border="1"> <tr><td>Rated voltage (V<sub>dc</sub>)</td><td>16</td><td>20</td><td>25</td></tr> <tr><td>Surge voltage (V<sub>dc</sub>)</td><td>18</td><td>23</td><td>29</td></tr> </table> <table border="1"> <tr><td>Appearance</td><td>No significant damage</td></tr> <tr><td>Capacitance change</td><td>≤ ±20% of the initial value</td></tr> <tr><td>D.F. (tan δ)</td><td>≤ 150% of the initial specified value</td></tr> <tr><td>ESR</td><td>≤ 150% of the initial specified value</td></tr> <tr><td>Leakage current</td><td>≤ The initial specified value</td></tr> </table>	Rated voltage (V <sub>dc</sub> )	16	20	25	Surge voltage (V <sub>dc</sub> )	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
Rated voltage (V <sub>dc</sub> )	16	20	25																
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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. <table border="1"> <tr><td>Appearance</td><td>No significant damage</td></tr> <tr><td>Capacitance value</td><td>Within the specified tolerance range</td></tr> <tr><td>D.F. (tan δ)</td><td>≤ The initial specified value</td></tr> <tr><td>ESR</td><td>≤ The initial specified value</td></tr> <tr><td>Leakage current</td><td>≤ The initial specified value (Voltage treatment)</td></tr> </table>	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)								
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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°C.

◆ DIMENSIONS [mm]

● Terminal Code : A



Note : L<sup>+0.1</sup><sub>-0.2</sub> for F46  
L±0.5 for JC0

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
F46	6.3	4.5	6.6	6.6	7.2	0.5 to 0.8	1.9
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
JC0	10	12.2	10.3	10.3	11.0	0.7 to 1.1	4.5

◆ MARKING

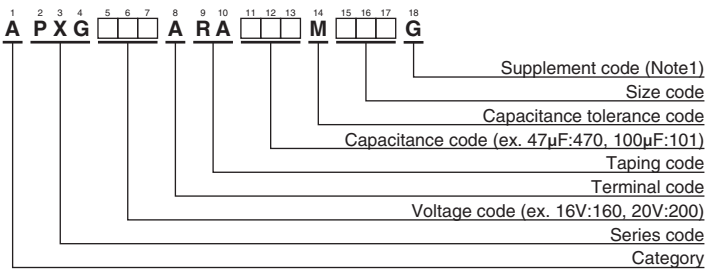
EX) 25V47μF





## NPCAP™-PXG Series Upgrade!

### ◆PART NUMBERING SYSTEM



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

(Note1) : PXG Series 16V68µF (ESR 20mΩ max.) and 16V82µF (ESR 20mΩ max.) have supplement code "J". Terminal and terminal plating are the same as all other in PXG series.

### ◆STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (µF)	Size code	Leakage current (µA max./after 2min.)	ESR (mΩ max./20°C, 100k to 300kHz)	Rated ripple current (mA rms/105°C, 100kHz)	Part No.
16	<b>68</b>	<b>F46</b>	<b>544</b>	<b>20</b>	<b>3,200</b>	<b>APXG160ARA680MF46J</b>
	68	F46	544	40	2,450	APXG160ARA680MF46G
	<b>82</b>	<b>F46</b>	<b>656</b>	<b>20</b>	<b>3,200</b>	<b>APXG160ARA820MF46J</b>
	<b>82</b>	<b>F46</b>	<b>656</b>	<b>40</b>	<b>2,450</b>	<b>APXG160ARA820MF46G</b>
	100	E61	320	27	3,000	APXG160ARA101ME61G
	180	F61	576	22	3,300	APXG160ARA181MF61G
	220	F80	704	22	3,300	APXG160ARA221MF80G
	270	H70	864	22	3,300	APXG160ARA271MH70G
	330	H70	1,050	22	3,300	APXG160ARA331MH70G
	560	J80	1,790	20	3,800	APXG160ARA561MJ80G
820	JC0	2,620	12	5,400	APXG160ARA821MJC0G	
1,000	JC0	3,200	12	5,400	APXG160ARA102MJC0G	
20	47	E61	188	30	2,800	APXG200ARA470ME61G
	47	F46	470	42	2,400	APXG200ARA470MF46G
	56	E61	224	30	2,800	APXG200ARA560ME61G
	120	F61	480	25	3,200	APXG200ARA121MF61G
	150	F80	600	25	3,200	APXG200ARA151MF80G
	180	H70	720	25	3,200	APXG200ARA181MH70G
	390	J80	1,560	22	3,650	APXG200ARA391MJ80G
25	22	E61	110	40	2,450	APXG250ARA220ME61G
	22	F46	275	45	2,350	APXG250ARA220MF46G
	27	E61	135	40	2,450	APXG250ARA270ME61G
	27	F46	337	45	2,350	APXG250ARA270MF46G
	39	F61	195	30	2,800	APXG250ARA390MF61G
	47	F61	235	30	2,800	APXG250ARA470MF61G
	56	F61	280	30	2,800	APXG250ARA560MF61G
	56	F80	280	28	2,800	APXG250ARA560MF80G
	68	F61	340	30	2,800	APXG250ARA680MF61G
	68	H70	340	28	3,000	APXG250ARA680MH70G
	120	F80	600	28	2,800	APXG250ARA121MF80G
	150	H70	750	28	3,000	APXG250ARA151MH70G
	150	J80	750	25	3,400	APXG250ARA151MJ80G
	180	J80	900	25	3,400	APXG250ARA181MJ80G

New products are indicated in red text.

### ◆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



- 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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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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- ✓ Excess Inventory Management