

Upgrade!

NPCAP™-PXF Series

- Super low ESR, impedance and high heat resistance have been obtained by using conductive polymer as electrolyte.
- Rated voltage range : 2.5 to 6.3V_{dc}, Capacitance range : 220 to 1,000μF
- Case size range : φ6.3×5.8L to φ8×7.7L
- Suitable for DC-DC converters, voltage regulators and decoupling applications used on computer motherboards etc.
- RoHS Compliant

PXF

Lower ESR
PXE



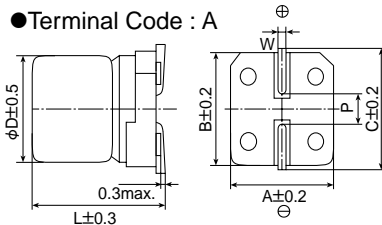
◆ SPECIFICATIONS

Items	Characteristics										
Category											
Temperature Range	-55 to +105°C										
Rated Voltage Range	2.5 to 6.3V _{dc}										
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)										
Surge Voltage	Rated voltage×1.15 (at 105°C)										
Leakage Current	I=0.3CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V _{dc}) (at 20°C after 2 minutes)										
Dissipation Factor (tanδ)	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 2,000 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>DF (tanδ)</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	DF (tanδ)	≤ 150% of the initial specified value	ESR	≤ 150% of the initial specified value	Leakage current	≤ The initial specified value
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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. <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>DF (tanδ)</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	DF (tanδ)	≤ 150% of the initial specified value	ESR	≤ 150% of the initial specified value	Leakage current	≤ The initial specified value
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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>Appearance</td><td>No significant damage</td></tr> <tr><td>Capacitance change</td><td>≤ ±20% of the initial value</td></tr> <tr><td>DF (tanδ)</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	DF (tanδ)	≤ 150% of the initial specified value	ESR	≤ 150% of the initial specified value	Leakage current	≤ The initial specified value
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DF (tanδ)	≤ 150% of the initial specified value										
ESR	≤ 150% of the initial specified value										
Leakage current	≤ The initial specified value										
Failure Rate	0.5% per 1,000 hours maximum (Confidence level 60% at 105°C)										

*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]

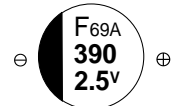
- Terminal Code : A



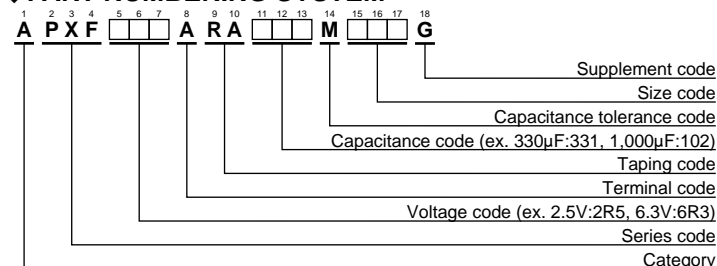
Size Code	φD	L	A	B	C	W	P
F61	6.3	5.8	6.6	6.6	7.2	0.5 to 0.8	1.9
F80	6.3	7.7	6.6	6.6	7.2	0.5 to 0.8	1.9
H70	8	6.7	8.3	8.3	9.0	0.7 to 1.1	3.1
H80	8	7.7	8.3	8.3	9.0	0.7 to 1.1	3.1

◆ MARKING

EX) 2.5V390μF



◆ PART NUMBERING SYSTEM



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



◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Size code	ESR (mΩmax/20°C, 100k to 300kHz)	Rated ripple current (mA _{rms} /105°C, 100kHz)	Part No.
2.5	390	F61	10	3,900	APXF2R5ARA391MF61G
	470	F80	9	4,200	APXF2R5ARA471MF80G
	560	F61	10	3,900	APXF2R5ARA561MF61G
	560	F80	9	4,200	APXF2R5ARA561MF80G
	560	H70	9	4,500	APXF2R5ARA561MH70G
	680	H70	9	4,500	APXF2R5ARA681MH70G
	1,000	H80	9	4,500	APXF2R5ARA102MH80G
4	330	F61	10	3,900	APXF4R0ARA331MF61G
	390	F80	9	4,200	APXF4R0ARA391MF80G
	470	H70	9	4,500	APXF4R0ARA471MH70G
	560	H70	9	4,500	APXF4R0ARA561MH70G
	680	H80	9	4,500	APXF4R0ARA681MH80G
6.3	220	F61	10	3,900	APXF6R3ARA221MF61G
	270	F80	9	4,200	APXF6R3ARA271MF80G
	330	F61	10	3,900	APXF6R3ARA331MF61G
	330	F80	9	4,200	APXF6R3ARA331MF80G
	330	H70	9	4,500	APXF6R3ARA331MH70G
	390	H70	9	4,500	APXF6R3ARA391MH70G
	470	H80	9	4,500	APXF6R3ARA471MH80G
	560	H80	9	4,500	APXF6R3ARA561MH80G