



# CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS

Radial Lead

## Upgrade! NPCAP™-PSF Series

- Super low ESR, high ripple current capability
- ESR 5mΩ max. (2 & 2.5Vdc)
- Longer life (5,000 hours at 105°C)
- ESR after endurance is specified within the initial spec (2 & 2.5Vdc)
- Rated voltage range : 2 to 16Vdc
- RoHS Compliant
- Halogen Free



### ◆SPECIFICATIONS

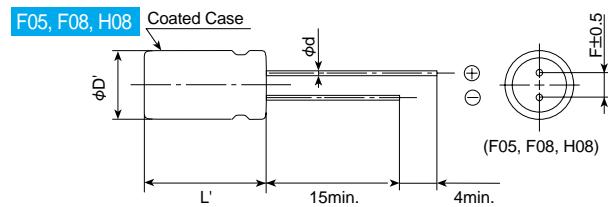
Items	Characteristics	
<b>Category</b> <b>Temperature Range</b>	-55 to +105°C	
<b>Rated Voltage Range</b>	2 to 16V <sub>dc</sub>	
<b>Capacitance Tolerance</b>	±20% (M) (at 20°C, 120Hz)	
<b>Surge Voltage</b>	Rated voltage(V)×1.15 (at 105°C)	
<b>Leakage Current</b> *Note	I=0.2CV or 500μA, whichever is greater Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes)	
<b>Dissipation Factor (tanδ)</b>	0.10 max. (at 20°C, 120Hz)	
<b>Low Temperature Characteristics (Max.Impedance Ratio)</b>	Z(-25°C)/Z(+20°C)≤1.15 Z(-55°C)/Z(+20°C)≤1.25 (at 100kHz)	
<b>Endurance</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 5,000 hours at 105°C.	
	Appearance	No significant damage
	Capacitance change	≤±20% of the initial value
	D.F. (tanδ)	≤The initial specified value
	ESR	2 & 2.5V <sub>dc</sub> : ≤The initial specified value 16V <sub>dc</sub> : ≤150% of the initial specified value
	Leakage current	≤The initial specified value
<b>Bias Humidity Test</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them to DC voltage at 60°C, 90 to 95% RH for 1,000 hours.	
	Appearance	No significant damage
	Capacitance change	≤±20% of the initial value
	D.F. (tanδ)	≤The initial specified value
	ESR	2 & 2.5V <sub>dc</sub> : ≤The initial specified value 16V <sub>dc</sub> : ≤150% of the initial specified value
	Leakage current	≤The initial specified value
<b>Surge Voltage Test</b>	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.	
	Appearance	No significant damage
	Capacitance change	≤±20% of the initial value
	D.F. (tanδ)	≤The initial specified value
	ESR	2 & 2.5V <sub>dc</sub> : ≤The initial specified value 16V <sub>dc</sub> : ≤150% of the initial specified value
	Leakage current	≤The initial specified value
<b>Failure Rate</b>	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.

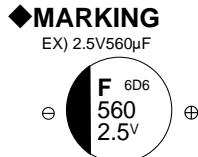
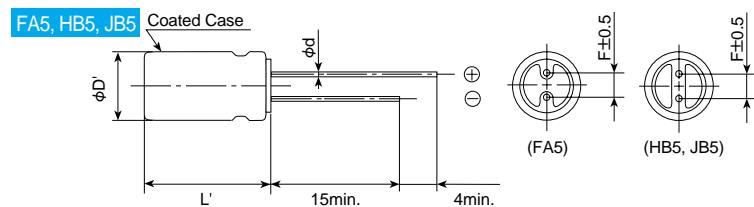
Voltage treatment : DC rated voltage is applied to the capacitors for 120 minutes at 105°C.

### ◆DIMENSIONS [mm]

#### ●Terminal Code : E



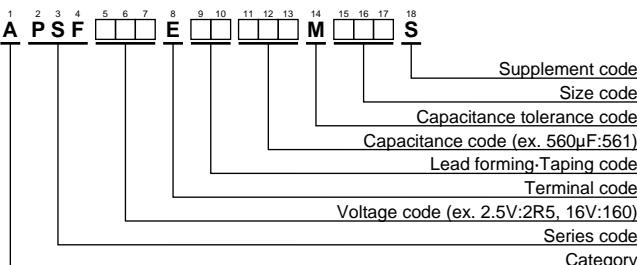
Size code	F05	F08	FA5	H08	HB5	JB5
φD	0.45	0.6	0.5	8.0	10.0	
F		2.5		3.5	5.0	
φD'				φD+0.5max.		
L'	L+1.0max.	L+0.3max.	L+1.0max.	L+1.5max.		





Upgrade!  
NPCAP™-PSF Series

### ◆PART NUMBERING SYSTEM



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

### ◆STANDARD RATINGS

WV(V <sub>dc</sub> )	Cap(μF)	Case size ΦDXL(mm)	ESR (mΩ max./20°C, 100kHz to 300kHz)	Rated ripple current (mA rms/105°C, 100kHz)	Part No.
2	1,000	6.3×8	5	5,900	APSF2R0E□□102MF08S
	330	6.3×8	5	5,900	APSF2R5E□□331MF08S
	470	6.3×8	5	5,900	APSF2R5E□□471MF08S
	560	6.3×8	5	5,900	APSF2R5E□□561MF08S
	820	6.3×8	5	5,900	APSF2R5E□□821MF08S
	1,600	8×8	5	6,100	APSF2R5E□□162MH08S
2.5	100	6.3×5	24	2,490	APSF160E□□101MF05S
	100	6.3×10.5	25	2,820	APSF160E□□101MFA5S
	270	8×8	10	5,000	APSF160E□□271MH08S
	270	8×11.5	11	5,080	APSF160E□□271MHB5S
	330	8×8	13	4,700	APSF160E□□331MH08S
	470	8×11.5	11	5,400	APSF160E□□471MHB5S
	470	10×11.5	10	6,100	APSF160E□□471MJB5S

□□ : Enter the appropriate lead forming or taping code.