

NPCAP™-PSF Series

- Super low ESR, high ripple current capability
- ESR 5mΩmax. (2 to 4V<sub>dc</sub>)
- Longer life (20,000 hours at 105°C)
- Rated voltage range : 2 to 16V<sub>dc</sub>
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- Halogen Free

PSF

Lower ESR  
PSE



◆ SPECIFICATIONS

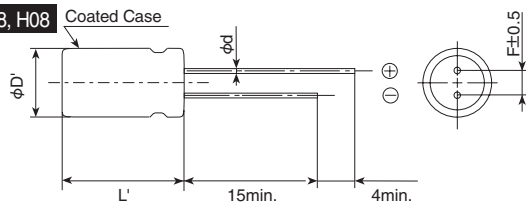
Items	Characteristics					
Category	-55 to +105°C					
Temperature Range	-55 to +105°C					
Rated Voltage Range	2 to 16V <sub>dc</sub>					
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)					
Leakage Current	Shall not exceed values shown in STANDARD RATINGS. (at 20°C after 2 minutes)					
*Note						
Dissipation Factor (tan δ)	0.10 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 20,000 hours at 105°C.					
	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 Test	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. (tan δ)	≤ The initial specified value				
	ESR	2 to 6.3V <sub>dc</sub> : ≤ The initial specified value 16V <sub>dc</sub> : ≤ 150% of the initial specified value				
	Leakage current	≤ The initial specified value				
Surge Voltage Test	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.					
	Rated voltage (V <sub>dc</sub> )	2.0	2.5	4.0	6.3	16
	Surge voltage (V <sub>dc</sub> )	2.3	2.9	4.6	7.2	18
	Appearance	No significant damage				
	Capacitance change	≤ ±20% of the initial value				
	D.F. (tan δ)	≤ The initial specified value				
	ESR	2 to 6.3V <sub>dc</sub> : ≤ The initial specified value 16V <sub>dc</sub> : ≤ 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]

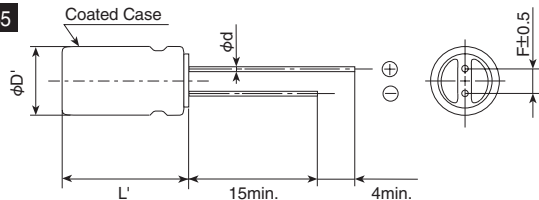
● Terminal Code : E

F05, F08, H08



Size code	F05	F08	H08	HB5	JB5
φD	6.3		8.0		10.0
φd	0.45		0.6		
F	2.5		3.5		5.0
Note 1 : L+1.2 max for 3V820μF					
L'	L+1.0max. (Note1)		L+1.5max.		

HB5, JB5



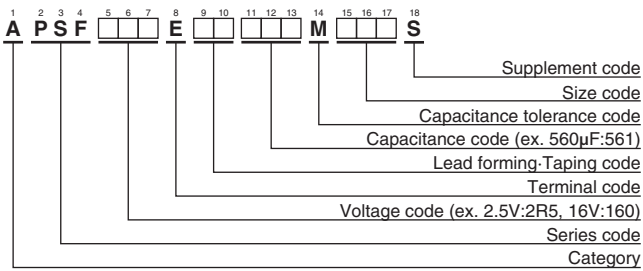
◆ MARKING

EX) 2.5V560μF



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 φD×L(mm)	Leakage current (μA max./after 2min.)	ESR (mΩ max./20°C, 100k to 300kHz)	Rated ripple current (mArms/105°C, 100kHz)	Part No.
2	1,000	6.3×8	500	5	5,900	APSF2R0E□□102MF08S
2.5	330	6.3×8	500	5	5,900	APSF2R5E□□331MF08S
	470	6.3×8	500	5	5,900	APSF2R5E□□471MF08S
	560	6.3×8	500	5	5,900	APSF2R5E□□561MF08S
	820	6.3×8	500	5	5,900	APSF2R5E□□821MF08S
	1,200	6.3×8	1,200	5	5,900	APSF2R5E□□122MF08S
	1,600	8×8	800	5	6,100	APSF2R5E□□162MH08S
4	470	6.3×8	500	5	5,900	APSF4R0E□□471MF08S
	560	6.3×8	500	5	5,900	APSF4R0E□□561MF08S
6.3	820	6.3×8	1,030	8	4,700	APSF6R3E□□821MF08S
16	100	6.3×5	500	24	2,490	APSF160E□□101MF05S
	270	8×8	864	10	5,000	APSF160E□□271MH08S
	270	8×11.5	864	11	5,080	APSF160E□□271MHB5S
	330	8×8	1,050	13	4,700	APSF160E□□331MH08S
	470	8×11.5	1,500	11	5,400	APSF160E□□471MHB5S
	470	10×11.5	1,500	10	6,100	APSF160E□□471MJB5S

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

◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Frequency(Hz)	120	1k	10k	50k	100k to 500k
Radial lead type	0.10	0.35	0.60	0.80	1.00