



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



NPCAP™-PSF Series

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

PSF
↑ Lower ESR
PSE P2-42



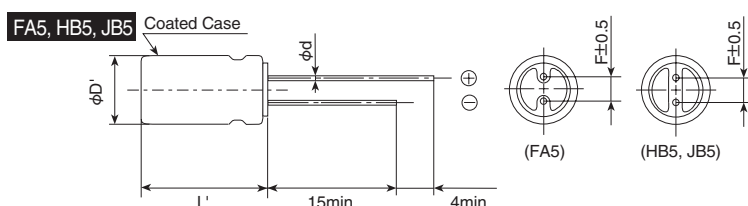
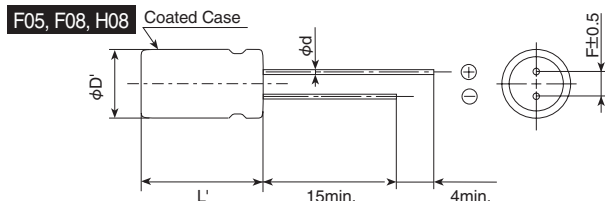
◆ SPECIFICATIONS

Items	Characteristics
Category	
Temperature Range	-55 to +105°C
Rated Voltage Range	2 to 16V _{dc}
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)
Surge Voltage	Rated voltage(V) × 1.15 (at 105°C)
Leakage Current *Note	Shall not exceed values shown in STANDARD RATINGS. (at 20°C after 2 minutes)
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 _{dc} : ≤ The initial specified value 16V _{dc} : ≤ 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.
	Appearance No significant damage
	Capacitance change ≤ ±20% of the initial value
	D.F. (tan δ) ≤ The initial specified value
	ESR 2 to 6.3V _{dc} : ≤ The initial specified value 16V _{dc} : ≤ 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



Size code	F05	F08	FA5	H08	HB5	JB5
φD		6.3		8.0		10.0
φd	0.45	0.6	0.5		0.6	
F		2.5		3.5		5.0
φD'	φD+0.5max.					
L'	L+1.0max. (Note1)	L+0.3max.	L+1.0max.		L+1.5max.	

Note1 : L+1.2 max. for 6.3V820μF

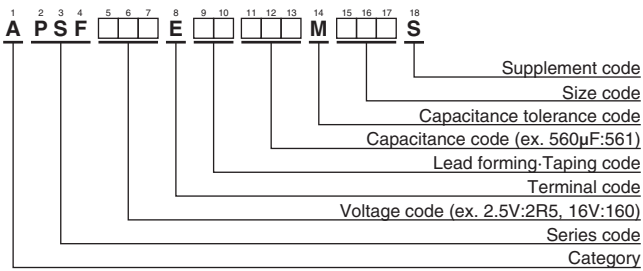
◆ MARKING

EX) 2.5V560μF



NPCAP™-PSF Series

◆PART NUMBERING SYSTEM



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

◆STANDARD RATINGS

WV (V _{dc})	Cap (µF)	Case size φ D × L (mm)	Leakage current (µA max./after 2min.)	ESR (mΩ max./20°C, 100k to 300kHz)	Rated ripple current (mA _{rms} /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
	100	6.3 × 10.5	500	25	2,820	APSF160E□□101MFA5S
	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