

Upgrade!

NPCAP™-PSG Series

- Super low ESR, high ripple current capability
- Endurance: 2,000 to 5,000 hours at 105°C
- Rated voltage : 16 to 25V<sub>dc</sub>
- RoHS Compliant
- Halogen Free

PSG

Downsized  
PSF



## SPECIFICATIONS

Items	Characteristics										
Category	Temperature Range										
	-55 to +105°C										
Rated Voltage	16 to 25V <sub>dc</sub>										
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)										
Surge Voltage	Rated voltage(V)×1.15 (at 105°C)										
Leakage Current	I=0.2CV or 500μA, whichever is greater (at 20°C after 2 minutes)										
*Note	Where, I : Leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V)										
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 5,000 hours (20, 25V : 2,000 hours) at 105°C.										
	<table> <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>≤ 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)	≤ 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)	≤ 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.										
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D.F. (tan δ)	≤ The initial specified value										
ESR	≤ 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.										
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Capacitance change	≤ ±20% of the initial value										
D.F. (tan δ)	≤ 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)										

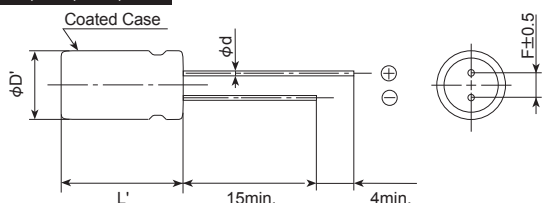
\*Note : If any doubt arises, measure the leakage current after the following voltage treatment.

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

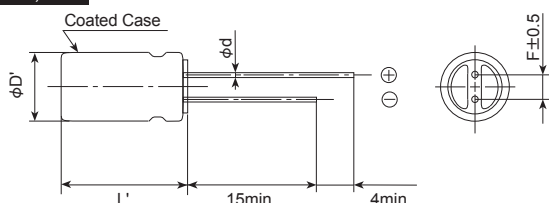
## DIMENSIONS [mm]

- Terminal Code : E

F05,F08,H06,H08



HB5,JB5



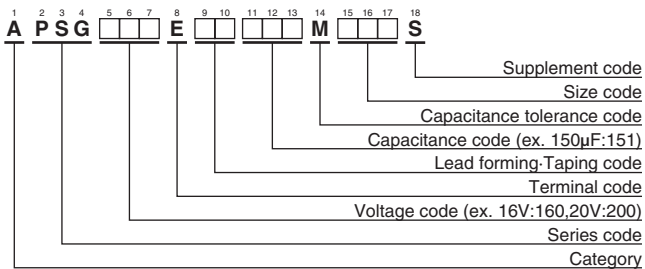
Size code	F05	F08	H06	H08	HB5	JB5
φD	6.3			8.0		10.0
φd	0.45			0.6		
F	2.5			3.5		5.0
φD'	φD+0.5max.					
L'	L+1.0max.			L+1.5max.		

## MARKING

EX) 16V150μF



◆PART NUMBERING SYSTEM



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

◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φD×L (mm)	ESR (mΩ max./20°C, 100k to 300kHz)	Rated ripple current (mA rms/105°C, 100kHz)	Part No.
16	150	6.3×5	20	3,200	APSG160E□□151MF05S
	270	6.3×8	15	3,800	APSG160E□□271MF08S
	270	8×6	22	3,300	APSG160E□□271MH06S
	470	8×8	16	4,000	APSG160E□□471MH08S
	560	8×11.5	14	4,970	APSG160E□□561MHB5S
	820	10×11.5	12	5,400	APSG160E□□821MJB5S
20	1,000	10×11.5	12	5,400	APSG160E□□102MJB5S
	120	6.3×5	20	3,200	APSG200E□□121MF05S
	330	8×8	17	3,880	APSG200E□□331MH08S
	390	8×11.5	14	4,970	APSG200E□□391MHB5S
25	680	10×11.5	12	5,400	APSG200E□□681MJB5S
	56	6.3×5	30	2,600	APSG250E□□560MF05S
	180	8×8	18	3,770	APSG250E□□181MH08S
	180	8×11.5	16	4,650	APSG250E□□181MHB5S
	220	8×11.5	16	4,650	APSG250E□□221MHB5S
	330	10×11.5	14	5,000	APSG250E□□331MJB5S
	390	10×11.5	14	5,000	APSG250E□□391MJB5S

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