

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_{dc}
- RoHS Compliant
- Halogen Free

PSG

Downsized

PSF P48



SPECIFICATIONS

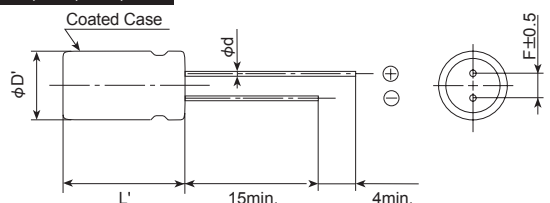
Items	Characteristics										
Category Temperature Range	-55 to +105°C										
Rated Voltage	16 to 25V _{dc}										
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)										
Surge Voltage	Rated voltage(V)×1.15 (at 105°C)										
Leakage Current	I=0.2CV or 500μA, whichever is greater (at 20°C 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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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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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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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.

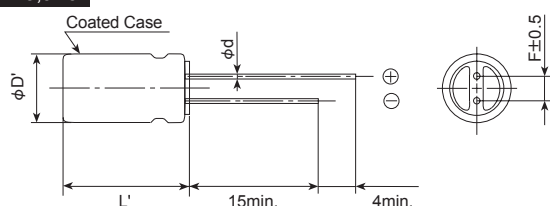
DIMENSIONS [mm]

●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. (Note1)			L+1.5max.		

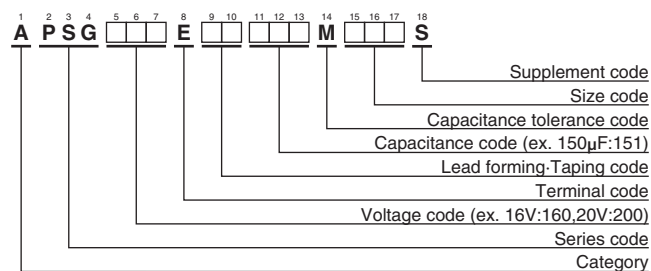
Note1 : L+1.2 max. for 16V270μF (Rated ripple current 5,080mA_{rms}).

MARKING

EX) 16V150μF



◆PART NUMBERING SYSTEM



(Note2) : PSG series, 16V270μF (Rated ripple current 5,080mArms) have supplement code "J".
Terminal and terminal plating are the same as all other in PSG series.

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 (mArms/105°C, 100kHz)	Part No.
16	150	6.3×5	20	3,200	APSG160E□□151MF05S
	270	6.3×8	10	5,080	APSG160E□□271MF08J
	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
	180	6.3×8	18	3,460	APSG200E□□181MF08S
	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
	82	6.3×8	28	2,780	APSG250E□□820MF08S
	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.