NPCAP™-PSG Upgrade! Series

- Super low ESR, high ripple current capability
- Endurance: 15,000 to 20,000 hours at 105℃
- Rated voltage : 16 to 35Vdc
- RoHS2 Compliant
- Halogen Free

PSG
↑ Downsized
PSF



◆SPECIFICATIONS

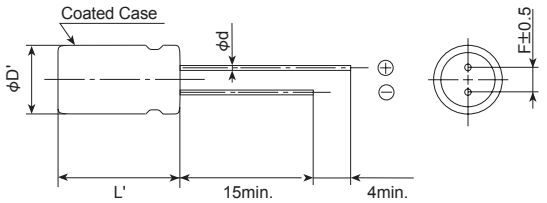
Items	Characteristics
Category Temperature Range	-55 to +105℃
Rated Voltage	16 to 35Vdc
Capacitance Tolerance	±20% (M) (at 20℃, 120Hz)
Leakage Current *Note	I=0.2CV or 500μA, whichever is greater Where, I : Leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20℃ after 2 minutes)
Dissipation Factor (tan δ)	0.12 max. (at 20℃, 120Hz)
Low Temperature Characteristics (Max.Impedance Ratio)	Z(-25℃)/Z(+20℃)≦1.15 Z(-55℃)/Z(+20℃)≦1.25 (at 100kHz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 20,000 hours (20 to 35V : 15,000 hours) at 105℃.
	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℃ after subjecting them to DC voltage at 60℃, 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: ≦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℃ for 30 seconds through a protective resistor(R=1kΩ) and discharge for 5 minutes 30 seconds.
	Rated voltage (Vdc): 16 / 20 / 25 / 35
	Surge voltage (Vdc): 18 / 23 / 29 / 40
	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
Failure Rate	0.5% per 1,000 hours maximum (Confidence level 60% at 105℃)

*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℃.

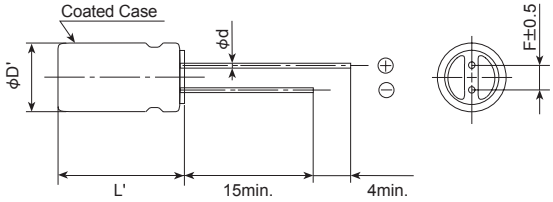
◆DIMENSIONS [mm]

●Terminal Code : E

F05,F08,H08



HB5,H16,H20,JB5,J16,J20



Size code	F05	F08	H08	HB5	H16	H20	JB5	J16	J20
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 5,080mArms).

◆MARKING

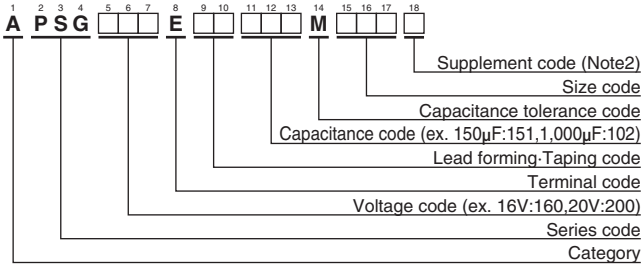
EX) 16V150μF



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NPCAP™-PSG Upgrade! Series

◆PART NUMBERING SYSTEM



Please refer to “Product code guide (conductive polymer type)”

(Note2) : PSG series, 16V270μF (Rated ripple current 5,080mArms) ,16V470μF (Rated ripple current 5,400mArms) ,16V560μF (Rated ripple current 6,100mArms)have supplement code “J”. Terminal and terminal plating are the same as all other in PSG series.

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Case size φD×L (mm)	ESR (mΩ max./20℃, 100k to 300kHz)	Rated ripple current (mArms/105℃, 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
	470	8×8	8	5,400	APSG160E□□471MH08J
	470	8×8	16	4,000	APSG160E□□471MH08S
	560	8×11.5	8	6,100	APSG160E□□561MHB5J
	560	8×11.5	14	4,970	APSG160E□□561MHB5S
	820	8×16	8	7,000	APSG160E□□821MH16S
	820	10×11.5	12	5,400	APSG160E□□821MJB5S
	1,000	8×16	8	7,000	APSG160E□□102MH16S
	1,000	8×20	8	7,500	APSG160E□□102MH20S
	1,000	10×11.5	12	5,400	APSG160E□□102MJB5S
	1,200	8×20	8	7,500	APSG160E□□122MH20S
	1,500	8×20	8	7,500	APSG160E□□152MH20S
	1,500	10×16	8	7,700	APSG160E□□152MJ16S
	1,800	10×16	8	7,700	APSG160E□□182MJ16S
	1,800	10×20	8	8,100	APSG160E□□182MJ20S
	2,200	10×20	8	8,100	APSG160E□□222MJ20S
	2,700	10×20	8	8,100	APSG160E□□272MJ20S
20	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
	680	10×11.5	12	5,400	APSG200E□□681MJB5S
25	56	6.3×5	30	2,600	APSG250E□□560MF05S
	82	6.3×8	28	2,780	APSG250E□□820MF08S
	100	6.3×8	28	2,780	APSG250E□□101MF08S
	120	6.3×8	28	2,780	APSG250E□□121MF08S
	180	8×8	18	3,770	APSG250E□□181MH08S
	180	8×11.5	16	4,650	APSG250E□□181MHB5S
	220	8×8	18	3,770	APSG250E□□221MH08S
	220	8×11.5	16	4,650	APSG250E□□221MHB5S
	270	8×11.5	16	4,650	APSG250E□□271MHB5S
	330	8×11.5	16	4,650	APSG250E□□331MHB5S
	330	10×11.5	14	5,000	APSG250E□□331MJB5S
	390	10×11.5	14	5,000	APSG250E□□391MJB5S
	470	10×11.5	14	5,000	APSG250E□□471MJB5S
	560	10×11.5	14	5,000	APSG250E□□561MJB5S
35	68	8×11.5	18	4,380	APSG350E□□680MHB5S
	120	10×11.5	16	4,670	APSG350E□□121MJB5S

□□ : 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

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Nippon Chemi-Con:

EMVE101ARA470MKE0S EMVY160ARA100MD55G EMZA630ARA301MKG5S HHXC500ARA470MHA0G
EKMG101ELL470MJC5S EKMQ401VSN151MQ25S EKMS161VSN332MA50S EKMG251ELL101MLN3S
ELXZ630ELL152MM35S ESMQ401VSN181MP35S EGPA350ELL122ML20S EKYB250ELL102MJ20S
EKY-250ELL331MJC5S EKZE101ELL101MK16S EKXG351ELL151MMP1S EGPD250ELL302MK25H
EGXF630ELL391MK20S EKY-101ETD221MK25S EKMQ201VSN152MR40S EKMR401VSN681MR50S
EKXJ401ELL121MMN3S EKXJ401ELL680ML25S EKZN350ELL471MJ20S EGXF500ELL751MK25S
EKMG160ELL682MLN3S EKY-101ELL101MK16S EKY-500ELL471MJ30S APXA6R3ARA471MJ80G
EKYA100ELL331MF11D EKYA500ELL222MLP1S