NIPPON CHEMI-CON

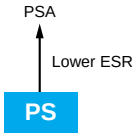
CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS

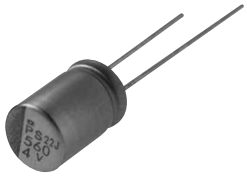
Radial Lead

Upgrade!

NPCAP™-PS Series

- Super low ESR, high temperature resistance
- Large capacitance & Improved high ripple current capability
- Rated voltage range : 2.5 to 35Vdc
- Endurance : 2,000 hours at 105℃
- Suitable for DC-DC converters, voltage regulators and decoupling applications
  For computer motherboards
- **RoHS Compliant**





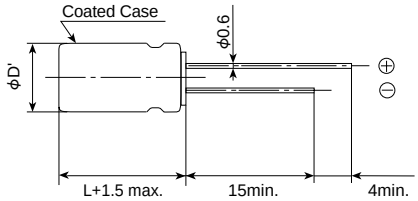
◆SPECIFICATIONS

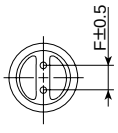
Items	Characteristics
Category Temperature Range	−55 to +105℃
Rated Voltage Range	2.5 to 35Vdc
Capacitance Tolerance	±20% (M) (at 20℃, 120Hz)
Surge Voltage	Rated voltage(V)×1.15 (at 105℃)
Leakage Current *Note	I=0.2CV (max.) (Rated voltage 2.5 to 25Vdc) / I=0.5CV (max.) (Rated voltage 35Vdc) Where, I : Leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (Vdc) (at 20℃ after 2 minutes)
Dissipation Factor (tanδ)	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 2,000 hours at 105℃.
	Appearance: No significant damage
	Capacitance change: ≦±20% of the initial measured value
	D.F. (tanδ): ≦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 500 hours.
	Appearance: No significant damage
	Capacitance change: ≦±20% of the initial measured value
	D.F. (tanδ): ≦150% of 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.
	Appearance: No significant damage
	Capacitance change: ≦±20% of the initial measured value
	D.F. (tanδ): ≦150% of the initial specified value
	ESR: ≦150% of the initial specified value
	Leakage current: ≦The initial specified value
Failure Rate	1% 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

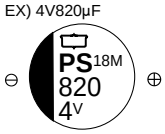




ϕD	8	10
ϕd	0.6	
F	3.5	5.0
ϕD'	ϕD+0.5max.	
L	L+1.5max.	

◆MARKING

EX) 4V820μF

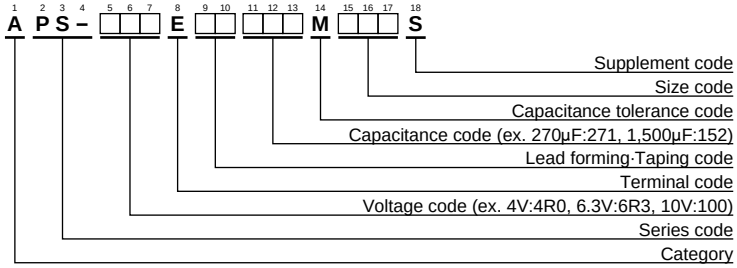


CAT. No. E1001G

Upgrade!

NPCAP™-PS Series

◆PART NUMBERING SYSTEM



Please refer to "A guide to global code (conductive polymer type)"

◆STANDARD RATINGS

WV(Vdc)	Cap(μF)	Case size φD×L(mm)	ESR (mΩmax/20℃, 100k to 300kHz)	Rated ripple current (mArms/105℃, 100kHz)	Part No.
2.5	680	8×11.5	10	5,230	APS-2R5E□□681MHB5S
	1,500	10×12.5	8	5,500	APS-2R5E□□152MJC5S
4	560	8×11.5	10	5,230	APS-4R0E□□561MHB5S
	820	10×12.5	8	5,500	APS-4R0E□□821MJC5S
6.3	390	8×11.5	12	4,770	APS-6R3E□□391MHB5S
	680	10×12.5	10	5,500	APS-6R3E□□681MJC5S
10	270	8×11.5	14	4,420	APS-100E□□271MHB5S
	470	10×12.5	12	5,300	APS-100E□□471MJC5S
16	180	8×11.5	16	4,360	APS-160E□□181MHB5S
	330	10×12.5	14	5,050	APS-160E□□331MJC5S
20	100	8×11.5	24	3,320	APS-200E□□101MHB5S
	150	10×12.5	20	4,320	APS-200E□□151MJC5S
25	68	8×11.5	24	3,320	APS-250E□□680MHB5S
	100	10×12.5	20	4,320	APS-250E□□101MJC5S
35	18	8 ×11.5	34	2,830	APS-350E□□180MHB5S
	33	10 ×12.5	30	3,270	APS-350E□□330MJC5S

□□ : Fill with appropriate lead forming or taping code.