NPCAP™-PSE Series

- Super low ESR, high ripple current capability
- Downsized from PSC series (φ8×8L to φ6.3×8L)
- Endurance is longer life than PSC series (5,000 hours at 105℃)
- ESR after endurance is specified within the initial spec
- Rated voltage range : 2.5 to 6.3Vdc
- **RoHS Compliant**
- **Halogen Free**

Halogen Free
Downsized
Long Life



◆SPECIFICATIONS

Items	Characteristics
Category Temperature Range	−55 to +105℃
Rated Voltage Range	2.5 to 6.3Vdc
Capacitance Tolerance	±20% (M) (at 20℃, 120Hz)
Surge Voltage	Rated voltage(V)×1.15 (at 105℃)
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 (tanδ)	0.10 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 5,000 hours at 105℃.
	Appearance: No significant damage
	Capacitance change: ≦±20% of the initial value
	D.F. (tanδ): ≦The initial specified value
	ESR: ≦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. (tanδ): ≦The initial specified value
	ESR: ≦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 value
	D.F. (tanδ): ≦The initial specified value
	ESR: ≦The initial specified value
	Leakage current: ≦The initial specified value
Halogen Free (Definition)	All homogeneous materials within a capacitor meet the criteria in Table-1 and Tabel-2. Homogeneous material has uniform composition throughout and cannot be mechanically disjointed into different materials.

Table-1

Substance	Permissible limit (by weight)
Bromine (Br)	≦900ppm (0.09%)
Chlorine (Cl)	≦900ppm (0.09%)
Total concentration of Chlorine (Cl) + Bromine (Br)	≦1,500ppm (0.15%)

Table-2

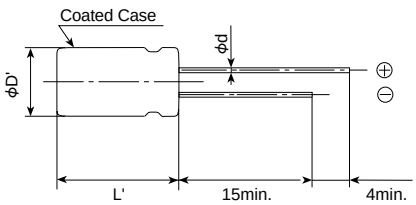
Substance	Permissible limit (by weight)
Antimony Trioxide (Sb_2O_3)	≦1,000ppm (0.10%)
Red Phosphorus	≦1,000ppm (0.10%)

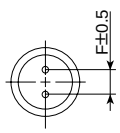
Failure Rate	0.5% per 1,000 hours maximum (Confidence level 60% at 105℃)

*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





Size code	F08
φD	6.3
φd	0.6
F	2.5
φD'	φD+0.5max.
L'	L+1.5max.

◆MARKING

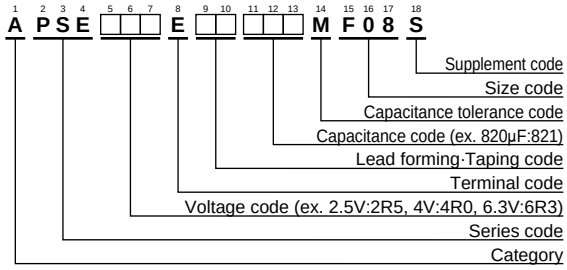
EX) 2.5V820μF



Specifications in this bulletin are subject to change without notice.

NPCAP™-PSE Series

◆PART NUMBERING SYSTEM



◆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.
2.5	820	6.3×8	7	5,000	APSE2R5E□□821MF08S
4	560	6.3×8	7	5,000	APSE4R0E□□561MF08S
6.3	470	6.3×8	8	4,700	APSE6R3E□□471MF08S
	560	6.3×8	8	4,700	APSE6R3E□□561MF08S

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

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