

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°C)
- ESR after endurance is specified within the initial spec
- Rated voltage range : 2.5 to 6.3V_{dc}
- RoHS Compliant
- Halogen Free

Halogen Free

Downsized

Long Life



◆SPECIFICATIONS

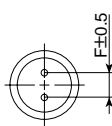
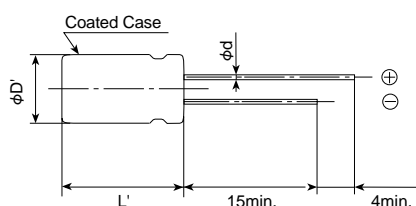
Items	Characteristics			
Category				
Temperature Range	-55 to +105°C			
Rated Voltage Range	2.5 to 6.3V _{dc}			
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)			
Surge Voltage	Rated voltage(V)×1.15 (at 105°C)			
Leakage Current	I=0.2CV or 500μA, whichever is greater			
*Note	Where, I : Leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes)			
Dissipation Factor (tanδ)	0.10 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 at 105°C.			
	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°C after subjecting them to DC voltage at 60°C, 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°C 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)	Substance	Permissible limit (by weight)
	Bromine (Br)	≤900ppm (0.09%)	Antimony Trioxide (Sb ₂ O ₃)	≤1,000ppm (0.10%)
	Chlorine (Cl)	≤900ppm (0.09%)	Red Phosphorus	≤1,000ppm (0.10%)
	Total concentration of Chlorine (Cl) + Bromine (Br)	≤1,500ppm (0.15%)		
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]

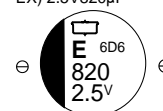
- Terminal Code : E



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

◆MARKING

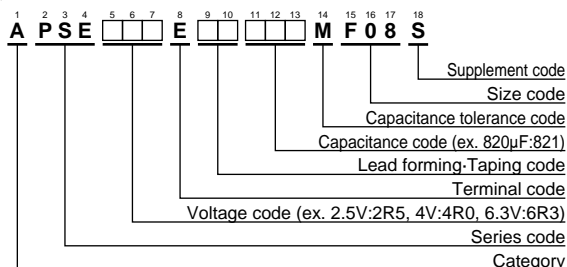
EX) 2.5V820μF



Specifications in this bulletin are subject to change without notice.

NPCAP™-PSE Series

◆PART NUMBERING SYSTEM



◆STANDARD RATINGS

WV(Vdc)	Cap(μF)	Case size φDXL(mm)	ESR (mΩ max./20°C, 100k to 300kHz)	Rated ripple current (mA rms/105°C, 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.