

NPCAP™-PSE Series

- Super low ESR, high ripple current capability
- Downsized from PSC series (φ 8×8L to φ 6.3×8L)
- Endurance is longer than PSC series (20,000 hours at 105°C)
- Rated voltage range : 2.5 to 6.3V_{dc}
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- Halogen Free

PSE

↑
Longer life
Downsized
PSC P2-44



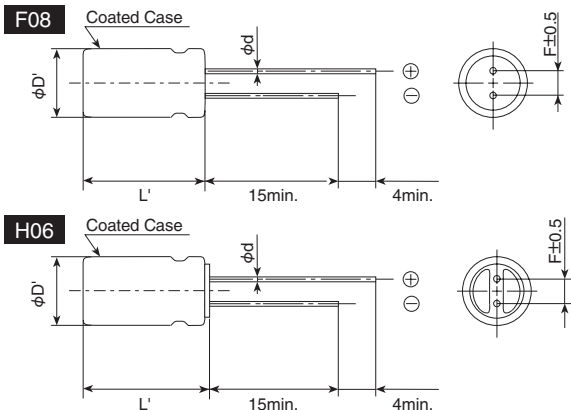
◆ SPECIFICATIONS

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 *Note	I=0.2CV or 500μA, whichever is greater Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes)										
Dissipation Factor (tan δ)	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 20,000 hours at 105°C. <table border="1"> <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>≤ 150% of the initial specified value</td> </tr> <tr> <td>ESR</td> <td>≤ 200% 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)	≤ 150% of the initial specified value	ESR	≤ 200% of the initial specified value	Leakage current	≤ The initial specified value
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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. <table border="1"> <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>≤ 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	≤ The initial specified value	Leakage current	≤ The initial specified value
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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. <table border="1"> <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>≤ 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	≤ The initial specified value	Leakage current	≤ The initial specified value
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ESR	≤ 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



Size code	F08	H06
φD	6.3	8.0
φd	0.6	
F	2.5	3.5
φD'	φD+0.5max.	
L'	L+1.5max.	

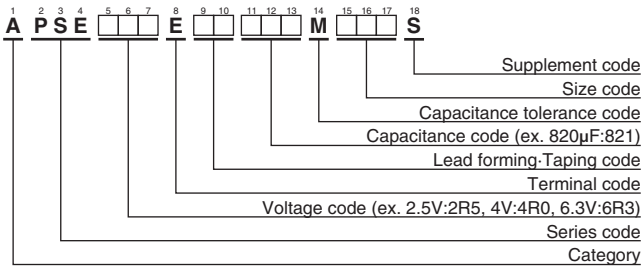
◆ MARKING

EX) 2.5V820μF



NPCAP™-PSE Series

◆PART NUMBERING SYSTEM



Please refer to "Product code guide (conductive polymer type)"

◆STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Case size φ D×L(mm)	ESR (mΩ max./20°C, 100k to 300kHz)	Rated ripple current (mA _{rms} /105°C, 100kHz)	Part No.
2.5	680	8 × 6	8	4,900	APSE2R5E□□681MH06S
	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.

◆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