

**NEW****Panasonic**

SP-Cap/ Polymer Aluminum Capacitors

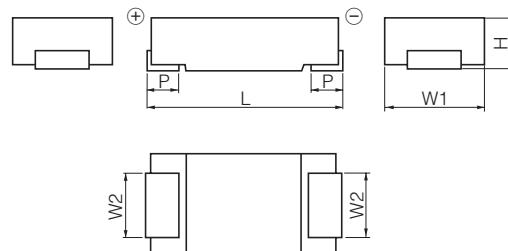
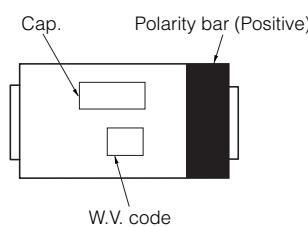
Surface Mount Type

**SP-Cap**Series: **FD, CD, CX, UD, UE****■ Features**

- Low ESR
- Excellent Noise-absorbent Characteristics
- RoHS directive compliant

**■ Specifications**

Series & Size Code	FD	CD	CX	UD	UE			
Category Temp. Range	−40 °C to +105 °C							
Rated W.V.Range	2 V.DC to 12.5 V.DC	2 V.DC to 16 V.DC	2 V.DC to 6.3 V.DC	2 V.DC to 8 V.DC	2 V.DC to 8 V.DC			
Nominal Cap.Range	15 µF to 68 µF	2.2 µF to 220 µF	100 µF to 470 µF	68 µF to 470 µF	100 µF to 560 µF			
Capacitance Tolerance	±20 %							
DC Leakage Current	Reflow 240 °C : I ≤ 0.06 CV 2minutes (2 V.DC to 4 V.DC) I ≤ 0.04 CV or 3 µA 2 minutes (6.3 V.DC to 16 V.DC) (Whichever is greater)							
Reflow 260 °C : I ≤ 0.1 CV 2 minutes								
$\tan \delta$	≤ 0.06 (120 Hz/+20 °C)		≤ 0.10 (120 Hz/+20 °C)					
Surge Voltage	Rated Working Voltage × 1.25 (15 °C to 35 °C)							
Endurance	After applying rated working voltage for 1000 hours at 105 °C ± 2 °C, and then being stabilized at +20 °C, capacitor shall meet the following limits.							
Capacitance change	±10% of initial measured value							
$\tan \delta$	≤ Initial specified value							
DC leakage current	≤ Initial specified value							
Moisture resistance	After storing for 500 hours at 60 °C, 90 %							
	Capacitance change of initial measurd value	2, 2.5 V.DC	4 V.DC	6.3 V.DC	8 V.DC to 16 V.DC			
		+70, −20 %	+60, −20 %	+50, −20 %	+40, −20 %			
	$\tan \delta$	≤ 200 % of initial specified value						
	DC leakage current	≤ Initial specified value						

**■ Marking****■ Dimensions in mm(not to scale)**

(mm)

Series & Size Code	L±0.2	W1±0.2	W2±0.1	H	P±0.3
FD	7.3	4.3	2.4	1.1±0.1	1.3
CD	7.3	4.3	2.4	1.8±0.1	1.3
CX	7.3	4.3	2.4	1.9±0.2	1.3
UD	7.3	4.3	2.4	2.8±0.2	1.3
UE	7.3	4.3	2.4	4.2±0.1	1.3

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.  
 Should a safety concern arise regarding this product, please be sure to contact us immediately.

02 Dec. 2008



