

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 : $I \leq 0.06 CV (\mu A) 2 \text{ minutes (2 V.DC to 4 V.DC)}$ $I \leq 0.04 CV \text{ or } 3 (\mu A) 2 \text{ minutes (6.3 V.DC to 16 V.DC)}$ (Whichever is greater) Reflow 260 °C : $I \leq 0.1 CV (\mu A) 2 \text{ minutes}$				
tan δ	≤ 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 δ	≤ Initial specified value			
	DC leakage current	≤ Initial specified value			
Moisture resistance	After storing for 500 hours at 60 °C, 90 %				
	Capacitance change of initial measured 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 δ	≤ 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

* Externals of figure are the reference.

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.

00 Sep. 2010

Standard Products

Table with columns: Series & Size Code, Rated W.V. (V.DC), Capacitance (±20%) (μF), Case Size (L, W, H mm), Specification (Ripple current, ESR), Part number (Reflow conditions), and Min. Packaging Qty (pcs). Rows are categorized by series: FD, CD, and CX.

*1: Ripple current (100 kHz/ +20 to +105 °C), *2: ESR (100 kHz/+20 °C)
*3: Please confirm EE25 in detail of the Mounting Specifications.

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