

NEW

Surface Mount Type **SP-Cap**

Series: **SS, ST, LS, LT, CS, CT**



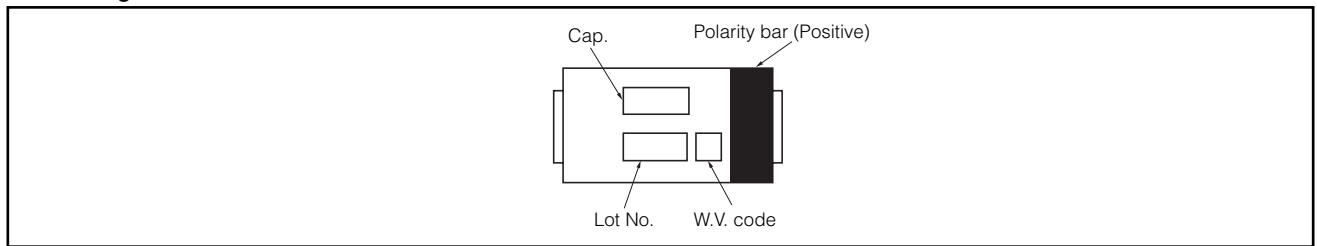
■ **Features**

- Low profile 1.1 mm, 1.4 mm
- Low ESR(6 mΩ), Large capacitance (SS, ST, LS, LT series)
- Low ESL by structure of SP-Cap 50% ESL of current products. (LS, LT series)
- High temperature reflow soldering applicable. (Peak : 260 °C 10s, main heating : 230 °C 40s)
- RoHS directive compliant

■ **Specifications**

Series & Size Code	SS	ST	LS	LT	CS	CT	
Category Temp. Range	-40 °C to +105 °C						
Rated W.V.Range	2 V.DC to 2.5 V.DC				4 V.DC to 6.3 V.DC		
Nominal Cap.Range	180 μF to 220 μF	270 μF to 330 μF	180 μF to 220 μF	270 μF to 330 μF	68 μF to 120 μF	100 μF to 180 μF	
Capacitance Tolerance	±20 % (120 Hz / + 20 °C)						
DC Leakage Current	I ≤ 0.1 CV (μA) 2minutes						
tan δ	≤ 0.06 (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 measurd value		2, 2.5 V.DC	4 V.DC	6.3 V.DC		
			+70, -20 %	+60, -20 %	+50, -20 %		
	tan δ		≤ 200 % of initial specified value				
	DC leakage current		≤ Initial specified value				

■ **Marking**



■ **Dimensions in mm(not to scale)**

(Unit : mm)

(Unit : mm)

SS, ST, CS, CT series

Series & Size Code	L±0.2	W1±0.2	W2±0.1	H±0.1	P±0.3
SS, CS	7.3	4.3	2.4	1.1	1.3
ST, CT	7.3	4.3	2.4	1.4	1.3

* Externals of figure are the reference.

LS, LT series

Series & Size Code	L±0.2	W1±0.2	W2±0.1	H±0.1	P1±0.3	P2±0.1	P3±0.2	P4±0.2
LS	7.3	4.3	2.4	1.1	1.3	1.1	0.7	1.4
LT	7.3	4.3	2.4	1.4	1.3	1.1	0.7	1.4

* 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.

■ Standard Products

Series & Size Code	Rated W.V. (V.DC)	Capacitance (±20 %) (μF)	Case Size			Specification		Part number Reflow condition : 260 °C *3	The number of terminals		Min. Packaging Q'ty (pcs)
			L (mm)	W (mm)	H (mm)	*1 Ripple current (Ar.m.s.)	*2 ESR (mΩ max.)		2	3	
SS	2	220	7.3	4.3	1.1	3.5	6	EEFSS0D221R	○		3500
	2.5	180	7.3	4.3	1.1	3.5	6	EEFSS0E181R	○		3500
ST	2	330	7.3	4.3	1.4	3.5	6	EEFST0D331R	○		3500
	2.5	270	7.3	4.3	1.4	3.5	6	EEFST0E271R	○		3500
LS	2	220	7.3	4.3	1.1	3.5	6	EEFLS0D221R		○	3500
	2.5	180	7.3	4.3	1.1	3.5	6	EEFLS0E181R		○	3500
LT	2	330	7.3	4.3	1.4	3.5	6	EEFLT0D331R		○	3500
	2.5	270	7.3	4.3	1.4	3.5	6	EEFLT0E271R		○	3500
CS	4	120	7.3	4.3	1.1	2.7	15	EEFCS0G121R	○		3500
	6.3	68	7.3	4.3	1.1	2.7	15	EEFCS0J680R	○		3500
CT	4	180	7.3	4.3	1.4	2.7	15	EEFCT0G181R	○		3500
	6.3	100	7.3	4.3	1.4	2.7	15	EEFCT0J101R	○		3500

*1: Ripple current (100 kHz/ +20 to +105 °C), *2: ESR (100 kHz/+20 °C)

*3: Please refer to the page of "Mounting Specifications".