

# Supercapacitors

## KSR Series



### Description

Cooper Bussmann® PowerStor® supercapacitors are unique, ultra-high capacitance devices utilizing electrochemical double layer capacitor (EDLC) construction combined with new, high performance materials. This combination of advanced technologies allows Cooper Bussmann to offer a wide variety of capacitor solutions tailored to specific applications that range from a few micro-amps for several days to several amps for milliseconds.

### Features & Benefits

- Eco-friendly
- Long cycle life
- High-rated voltage
- Small-sized and large capacity

### Applications

- RTC Back-up (MP3, PMP, MD player, DSC, wireless phone, pagers, PDA, cellular phone, etc.)
- Solar watch, solar calculators

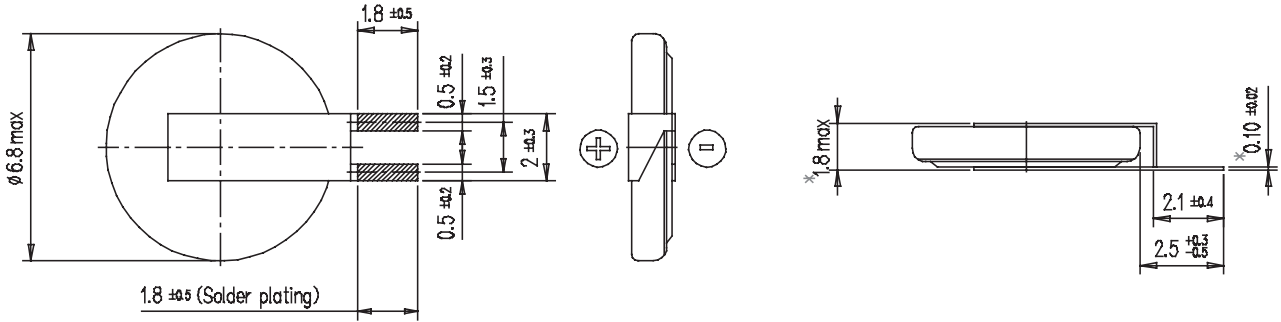


Specifications		
	KSR-2R8334-R	KSR-3R3204-R
Working Voltage	2.8V	3.3V
Surge Voltage	2.8V	3.3V
Nominal Capacitance	0.33F	0.22F
Capacitance Tolerance	-20% to +80% (20°C)	-20% to +80% (20°C)
Operating Temperature Range	-10°C to 60°C	-10°C to 60°C

Standard Product					
Nominal Capacitance (F)	Part Number	Nominal ESR ( $\Omega$ ) (Equivalent Series Resistance) Measured @1kHz	Nominal Dimensions (mm)		Typical Mass (grams/piece)
			Diameter	Thickness	
0.22	KSR-3R3204-R	200	6.8	1.4	0.19
0.33	KSR-2R8334-R	200	6.8	1.4	0.19

Performance		
Parameter	Capacitance Change (% of initial measured value)	ESR ( $\Omega$ ) (% of initial specified value)
Life (0.22F = 1000 hrs @ 60°C @ 3.3Vdc) (0.33F = 1000 hrs @ 60°C @ 2.8Vdc)	≤ 30 %	≤ 400
Storage - Low and High Temperature (1000 hrs @ -10°C and 60°C)	≤ 30 %	≤ 400

## Dimensions - mm



Note: These parts are not suitable for reflow solder.

Part Numbering System									
K	SR	-	3	R	3	20	4	-	R
Series Code			Voltage (V) R is Decimal		Capacitance (μF)				
K =	SR = SMT		3R3 = 3.3V		Value	Multiplier			RoHS Compliant
Coin Cell	Low-Profile				Example 204 = 20 x 10 <sup>4</sup> μF or 0.2F				

## Packaging Information

Standard packaging: Bulk, 1000 units per pack.

## Part Marking

Manufacturer

Product Series & Size

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