



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 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

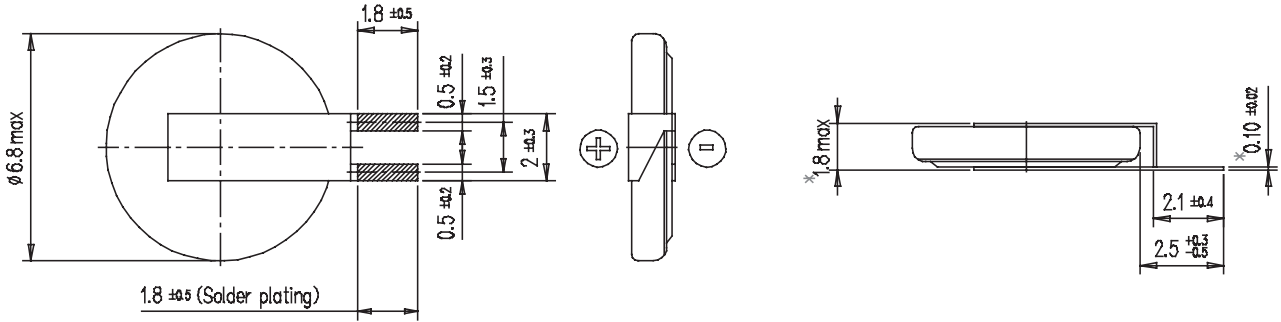


Specifications		
	KSR-2R8334-R	KSR-3R3204-R
Working Voltage	2.8V	3.3V
Surge Voltage	2.8V	3.3V
Nominal Capacitance	0.33F	0.22F
Capacitance Tolerance	-20% to +80% (20°C)	-20% to +80% (20°C)
Operating Temperature Range	-10°C to 60°C	-10°C to 60°C

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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