

**FEATURES**

- Able to be used at wide temperature from -25°C to 70°C
- Long life Endurance : 1,000 hours at +70°C, Low ESR
- REACH,RoHS Directive Compliant



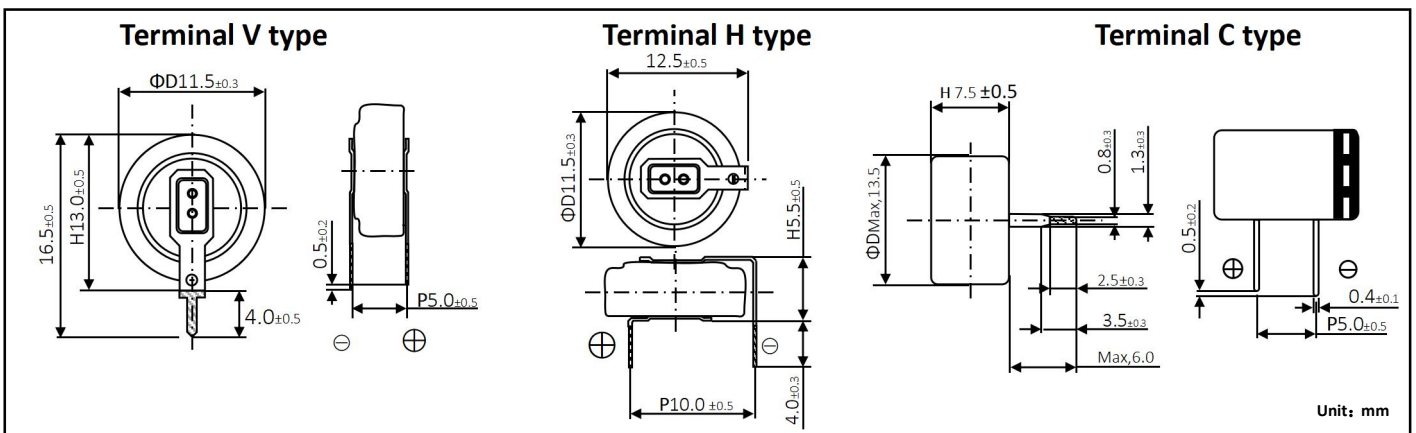
**APPLICATIONS**

- Memory back-up for Video, Audio, Cameras, CCTV, Printer, Camcorder, Telephones, Car stereo, E-meter, Toy, Computer, Notebook PC, Rice cooker, Home network etc.

PART NUMBER SYSTEM					
<b>CBN</b>	<b>5R5</b>	<b>224</b>	<b>H</b>	<b>F</b>	<b>**</b>
Series	Rated Voltage	Capacitance	Type	RoHS	Special Code

**GENERAL SPECIFICATIONS / DIMENSIONS**

Item	Performance			
Operating temperature	-25°C to +70°C			
Capacitance range	0.22F to 0.47F			
Capacitance tolerance	- 20% to + 80% (at 25°C)			
Rated voltage	5.5 VDC			
Nominal capacitance & Resistance	Nominal capacitance (F)	0.22	0.33	0.47
	Nominal resistance (Ω)	25	25	25
Temperature characteristics	Capacitance change: Within ±30% of initial measured value at +20°C (-15°C to +70°C) Internal resistance: Within ±500% of initial measured value at +20°C (at -15°C)			
Endurance (At rated voltage & max. operating temp)	After 1000 hours: Capacitance change: ±30% of initial rated value Internal resistance: Within 4 times of initial specified value			
Shelf life	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits.			



**STANDARD PRODUCTS**

Part Number	Working Voltage (V DC)	Rated Cap. (F)	V type(mm)		
			ΦD	H	P
CBN5R5224VF-ZG	5.5	0.22	11.5	13.0	5.0
CBN5R5334VF-ZG	5.5	0.33	11.5	13.0	5.0
CBN5R5474VF-ZG	5.5	0.47	11.5	13.0	5.0

Part Number	Working Voltage (V DC)	Rated Cap. (F)	H type(mm)		
			ΦD	H	P
CBN5R5224HF-ZG	5.5	0.22	11.5	5.5	10.0
CBN5R5334HF-ZG	5.5	0.33	11.5	5.5	10.0
CBN5R5474HF-ZG	5.5	0.47	11.5	5.5	10.0

Part Number	Working Voltage (V DC)	Rated Cap. (F)	C type(mm)		
			ΦD	H	P
CBN5R5224CF-ZG	5.5	0.22	13.5	7.5	5.0
CBN5R5334CF-ZG	5.5	0.33	13.5	7.5	5.0
CBN5R5474CF-ZG	5.5	0.47	13.5	7.5	5.0

**Precautions**

- Please do not apply external force to the product or the terminal due to stress such as twisting, bending, pushing, knocking down, etc., which may cause the product or terminal to fall off, resulting in an open circuit, short circuit, or liquid leakage.
- Please do not overheat the capacitor with respect to heating in an adhesive curing furnace, etc. For details, see Precautions for Using Electric Double Layer Capacitors.