

## Stacked Coin Type

Not recommended for new design

Series : **SD** Low temperature assured product



### Features

- Endurance : +70 °C 1000 h
- Category temperature range : -40 °C to +70 °C
- RoHS compliant

### Recommended applications

- Memory back-up for video and audio equipment, cameras, telephones, printers, data terminals, rice cookers, intelligent remote controls

### Specifications

Category temp. range	-40 °C to +70 °C	
Maximum operating voltage	5.5 V.DC	
Nominal cap.range	0.22 F, 0.33 F	
Characteristics at low temperature	Capacitance change	±30 % of initial measured value at +20 °C (at -40 °C)
	Internal resistance	≤ 7 times of initial measured value at +20 °C (at -40 °C)
Endurance	After 1000 hours application of 5.5 V.DC at +70 °C, the capacitor shall meet the following limits.	
	Capacitance change	±30 % of initial measured value
Shelf life	After 1000 hours storage at +70 °C without load, the capacitor shall meet the specified limits for Endurance.	

### Dimensions in mm(not to scale)

**Terminal: V**

(Unit : mm)

Cap. (F)	B
0.22	5.0
0.33	5.5

**Terminal: H**

(Unit : mm)

Cap. (F)	A
0.22	6.0
0.33	6.5

### Characteristics list

Maximum operating voltage (V.DC)	Capacitance (F)	Capacitance tolerance (F)	Internal resistance (Initial specified value) (Ω) at 1 kHz	Recommended discharge current (μA)	Parts number	Mass (Reference value) (g)	Min. packaging q'ty (pcs)
5.5	0.22	0.176 to 0.396	≤ 75	300 or less	EECS0HD224( )N	1.0	200
	0.33	0.264 to 0.594	≤ 75	300 or less	EECS0HD334( )N	1.1	200

( ) Please use V or H, to indicate the terminal style.

Note : Do not use reflow soldering. (IR, Atmosphere heating methods, etc.)

Please refer to the page of "Application guidelines".

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### Specifications

Category temp. range	-25 °C to +70 °C	
Maximum operating voltage	5.5 V.DC	
Nominal cap.range	0.22 F, 0.33 F	
Characteristics at low temperature	Capacitance change	±30 % of initial measured value at +20 °C (at -25 °C)
	Internal resistance	≤ 5 times of initial measured value at +20 °C (at -25 °C)
Endurance	After 1000 hours application of 5.5 V.DC at +70 °C, the capacitor shall meet the following limits.	
	Capacitance change	±30 % of initial measured value
	Internal resistance	≤ 4 times of initial specified value
Shelf life	After 1000 hours storage at +70 °C without load, the capacitor shall meet the specified limits for Endurance.	

### Dimensions in mm(not to scale)

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(Unit : mm)

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0.22	5.0
0.33	5.5

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(Unit : mm)

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