

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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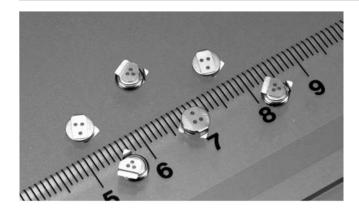








## XH414HG/ XH409HG (Under development)



The XH-HG is a capacitor with an excellent large current discharge characteristic at least 3 V, compared to its predecessor (XH414H). It is an environmentally friendly product that is reflow mounted by Pb-free soldering. It features high capacity, and long-term reliability, as well as a wide operating voltage range. It is thus suitable for backup power supply of clock and memory functions of mobile and information devices.

## **FEATURES**

· Pb-free reflowable:

Superior heat resistance (260°C peak) allows reflow soldering by Pb-free solder

- · Wide operating voltage range from 0V to 3.3V
- · High capacity: 0.08F with "414" size
- · Long Cycle Life:

At least 10,000 times of charge/discharge

- · Simple charging circuit (constant voltage charging)
- Wide operating temperature range:
  Operating temperature range: -20°C to +60°C



Backup power supply for memory and clock functions of cellphone, PHS, cordless phone, digital still camera, PDA, MD player, game machine, and printer, etc.

# SPECIFICATIONS

Туре	Electrical Specifications (Normal Temperature)*1			Size		
	Maximum Use Voltage (V)	Capacitance (F)	Internal Impedance <sup>*2</sup> $(\Omega)$	Diameter (mm)	Height (mm)	Weight (g)
XH414HG	3.3	0.08	100	4.8	1.4	0.06
XH409HG (under development)	3.3	(0.05)	(100)	4.8	0.9	0.05

- \*1. Normal temperature: 23°C ± 3°C. Electrical characteristics and aging degradation of the products depend on temperature.
- \*2. Value measured using AC (Alternating Current) method at the fully charged state.

#### <APPLICATION NOTES>

#### Prohibition ripple charging

A ripple (high frequency fluctuation of voltage) in the charge voltage extremely lowers the capacitor performance. Be sure to charge capacitors with a stable voltage.

### Charge voltage

The age deterioration of the capacitor depends on the charge voltage. The age deterioration is accelerated as charge voltage goes higher.

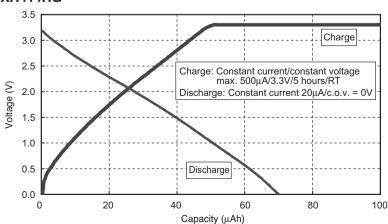
#### Usage environment

Aging degradation of the capacitor varies depending on the usage environment (temperature and humidity). Contact us for further details.

# CHARACTERISTICS

## Charge/discharge characteristics

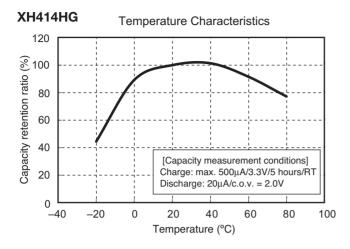
### **XH414HG**

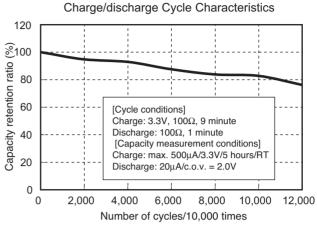


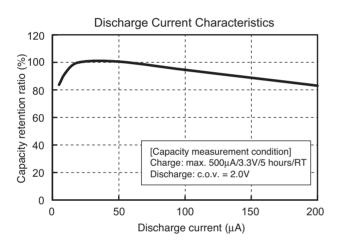
XH-HG Capacitor Pb-free reflowable

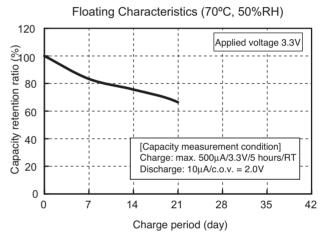
# CHARACTERISTICS

### Storage and other characteristics

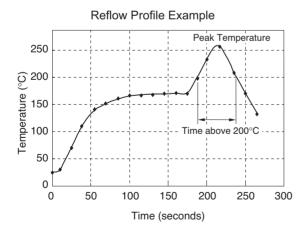




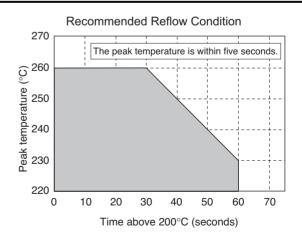




## REFLOW SOLDERING CONDITIONS



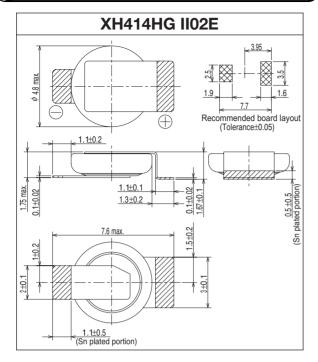
The times of repeated reflow soldering must be two times or less. The Temperature must be measured at top of the cell.

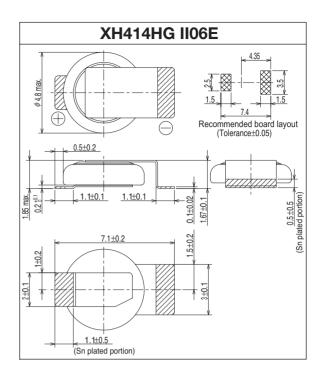


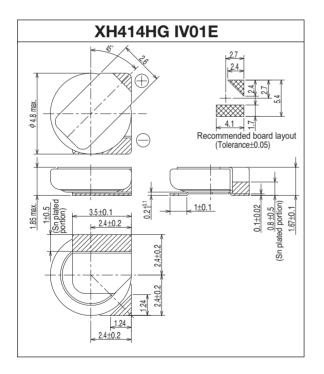
Max.260°C (within 5 seconds)

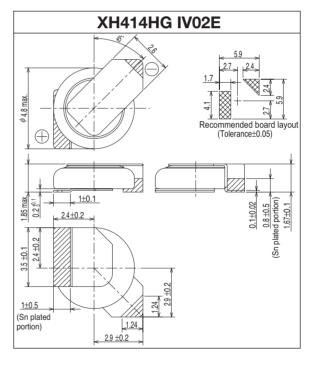
Micro Battery 2007-2008 Seiko Instruments Inc. 15

## STANDARD TERMINALS









- Contact Seiko Instruments Inc. for batteries with terminals other than the above shapes.
- Units: mm
- The hatched parts are tin plated (Sn: 100%).