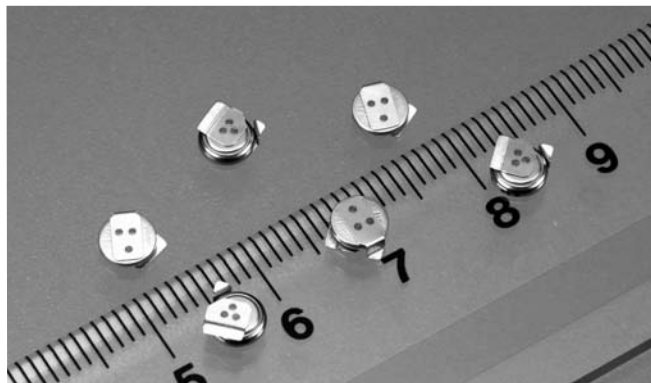


XH414HG/ XH409HG (Under development)



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

APPLICATIONS

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

Type	Electrical Specifications (Normal Temperature)*1			Size		Weight (g)
	Maximum Use Voltage (V)	Capacitance (F)	Internal Impedance*2 (Ω)	Diameter (mm)	Height (mm)	
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

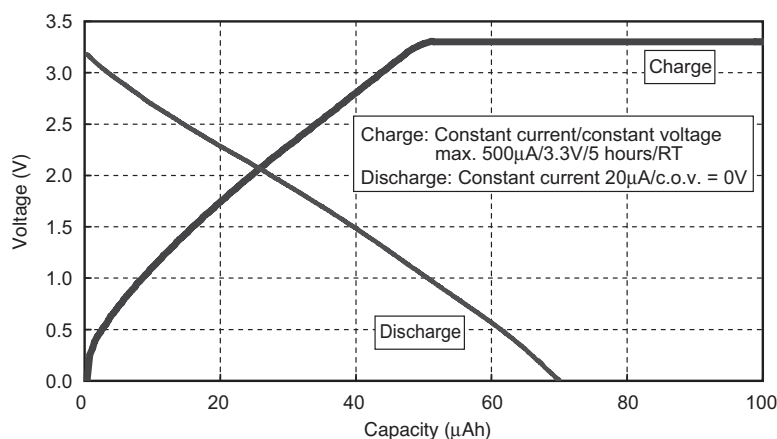
Aging degradation of the capacitor varies depending on the usage environment (temperature and humidity).

Contact us for further details.

CHARACTERISTICS

Charge/discharge characteristics

XH414HG

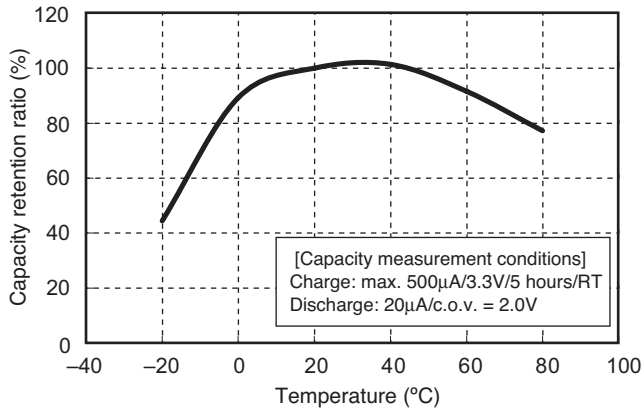


CHARACTERISTICS

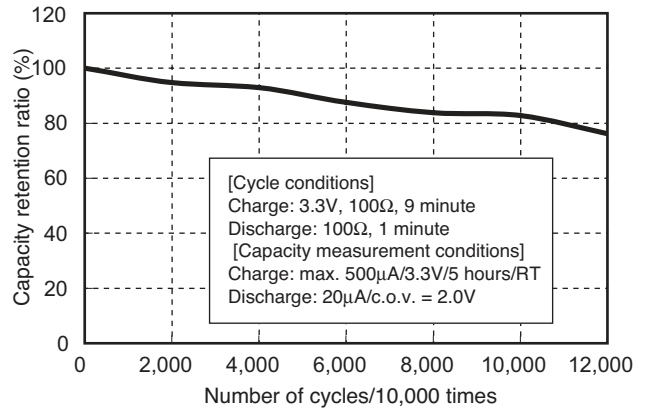
Storage and other characteristics

XH414HG

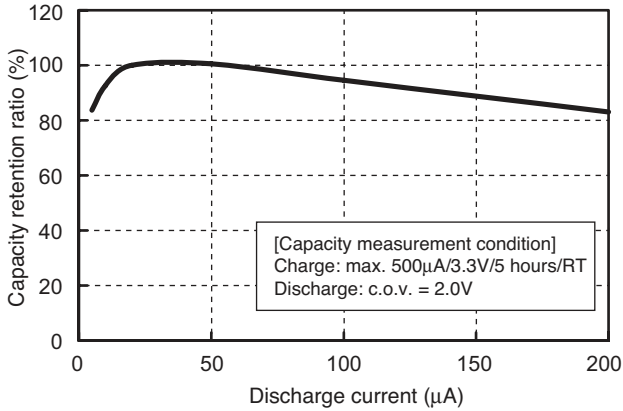
Temperature Characteristics



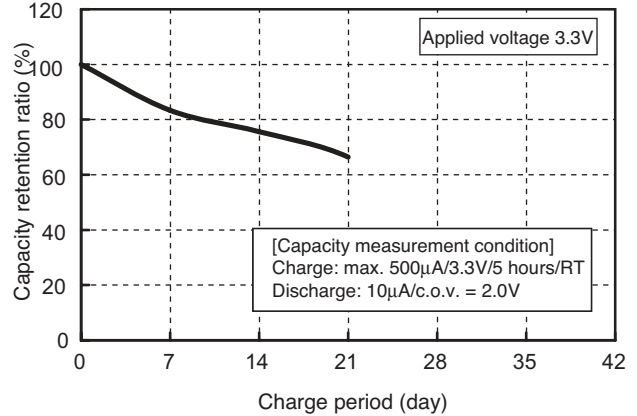
Charge/discharge Cycle Characteristics



Discharge Current Characteristics

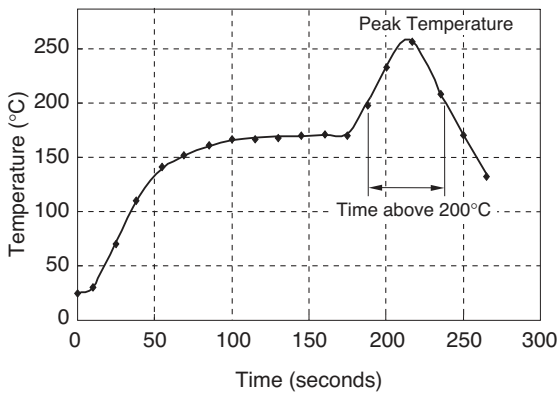


Floating Characteristics (70°C, 50%RH)



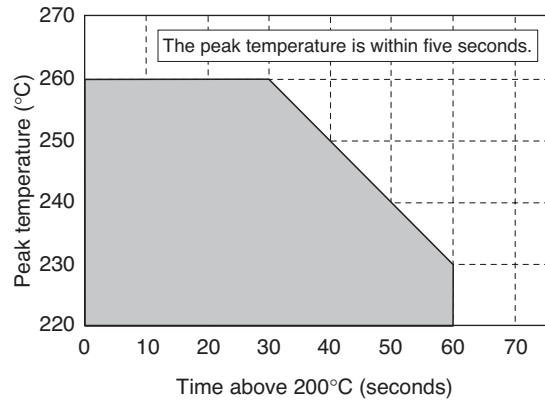
REFLOW SOLDERING CONDITIONS

Reflow Profile Example

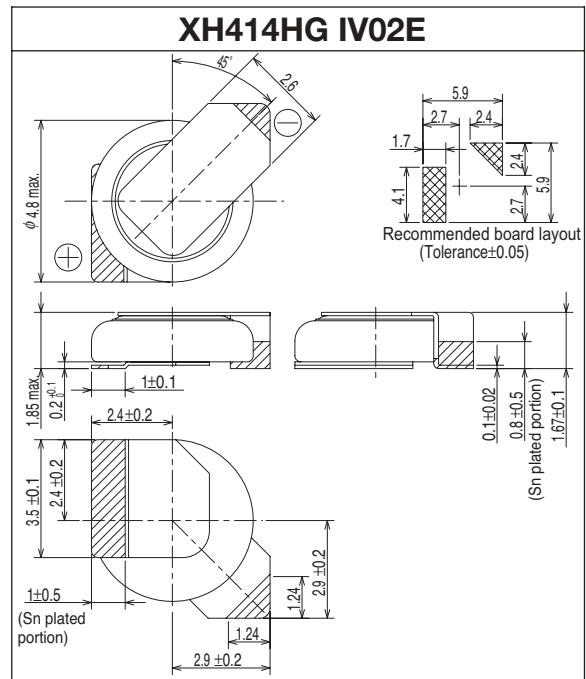
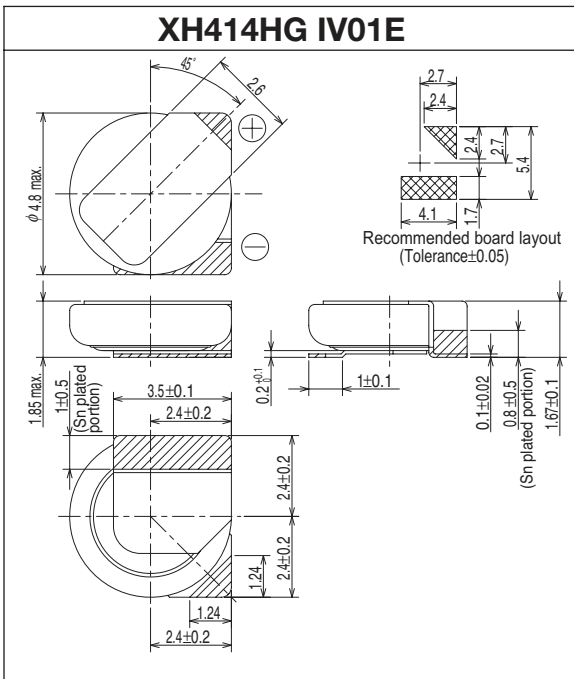
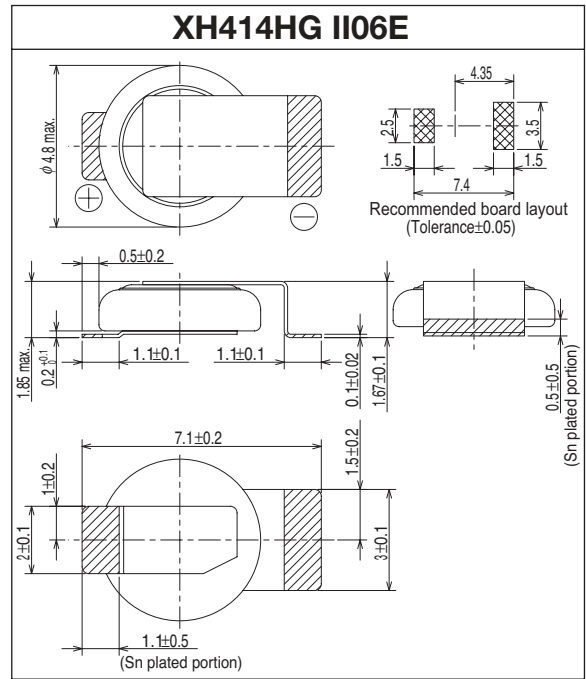
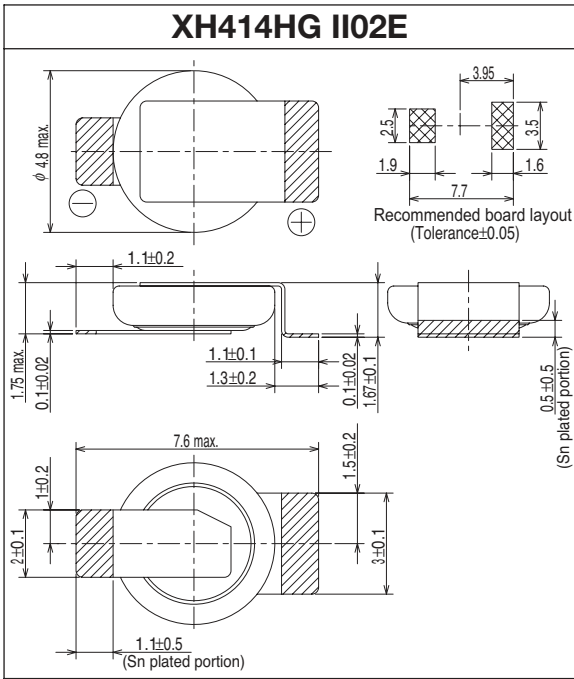


The times of repeated reflow soldering must be two times or less.
 The Temperature must be measured at top of the cell.

Recommended Reflow Condition



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%).