



# DS3802 Advanced NV SRAM Battery

www.maxim-ic.com

## FEATURES

- Houses 380mAh primary lithium batteries
- Snaps directly onto a surface-mounted 40mm ball-grid array (BGA) nonvolatile (NV) SRAM module
- Attaches after host BGA module has been surface-mounted to protect lithium battery from the high temperatures of reflow soldering
- Maintains mechanical and electrical connection with BGA module even during severe shock and vibration stresses
- Two attachment flanges latch onto host BGA module to provide a strong, semipermanent attachment
- Industrial temperature range of  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

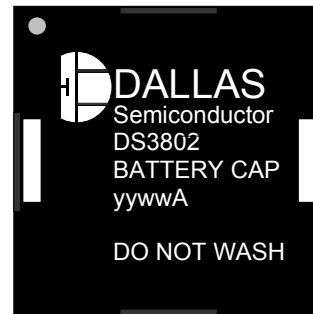
## ABSOLUTE MAXIMUM RATINGS

Operating Temperature  $-10^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$   
 Nonoperating Temperature  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

## BATTERY CHARACTERISTICS

Nominal Voltage 3V  
 Nominal Capacity 380mAh  
 Chemistry  $\text{Li}(\text{CF})_x$   
 Data Retention Life 8 Years ( $+25^{\circ}\text{C}$ )

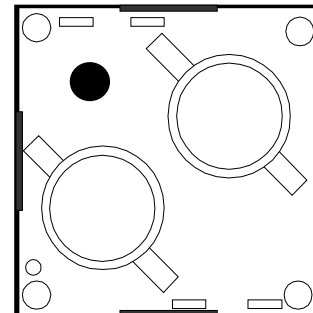
## PACKAGE OUTLINE



Top View



Side View



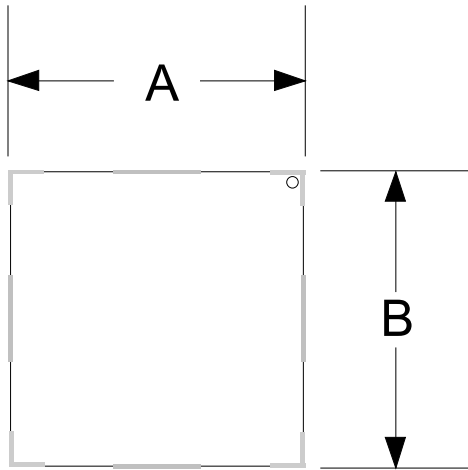
Bottom View

## DESCRIPTION

The DS3802 battery cap is a snap-on lithium power source for Dallas Semiconductor's 40mm BGA NV SRAM modules including the DS3832C-311 and DS3816C-511. After a host BGA module has been soldered in place and cleaned, the DS3802 battery cap is snapped onto the module to serve as the secondary power supply. The battery cap is keyed to prevent incorrect attachment and is designed to maintain mechanical and electrical contact with its host module even during severe shock and vibration. Electrically, the DS3802 battery is connected to the host BGA module with gold-plated round pins in the battery cap inserted into gold-plated receptacles on the BGA. Mechanically, two flanges on the DS3802 tightly grip the BGA module board to prevent accidental cap removal, while corner features in the cap prevent lateral movement of the cap while it is attached to its host BGA module.

**DS3802 Package Dimensions**

(Attached to DS3832C-311 NV Module Base)



DIM	MIN	MAX
<b>A</b> in	-	1.830
<b>A</b> mm	-	45.046
<b>B</b> in	-	1.830
<b>B</b> mm	-	45.046
<b>C</b> in	-	0.435
<b>C</b> mm	-	10.708
<b>D</b> in	-	0.0390
<b>D</b> mm	-	0.9600

