



# DS9034PCX

## PowerCap with Crystal

[www.maxim-ic.com](http://www.maxim-ic.com)

### GENERAL DESCRIPTION

The DS9034PCX PowerCap is designed to be a lithium power source for nonvolatile timekeeping RAMs in Dallas Semiconductor's directly surface-mountable PowerCap Module (PCM) package. After a PowerCap module board has been soldered in place and cleaned, the DS9034PCX PowerCap is placed on top of the PCM board to form a complete PowerCap module package. The PowerCap is keyed to prevent incorrect attachment.

The DS9034PCX can be easily removed by inserting a regular screwdriver into a detachment feature and prying gently outward and upward to release the PowerCap from the PowerCap module board.

### ABSOLUTE MAXIMUM RATINGS

Storage Temperature Range: -40°C to +85°C

*Stresses beyond those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to the absolute maximum rating conditions for extended periods may affect device.*

### BATTERY CHARACTERISTICS

Nominal Voltage: 3V

Nominal Capacity: 130mAh

Chemistry: Li(CF)<sub>x</sub>

### CRYSTAL CHARACTERISTICS

Nominal Frequency: 32.768kHz

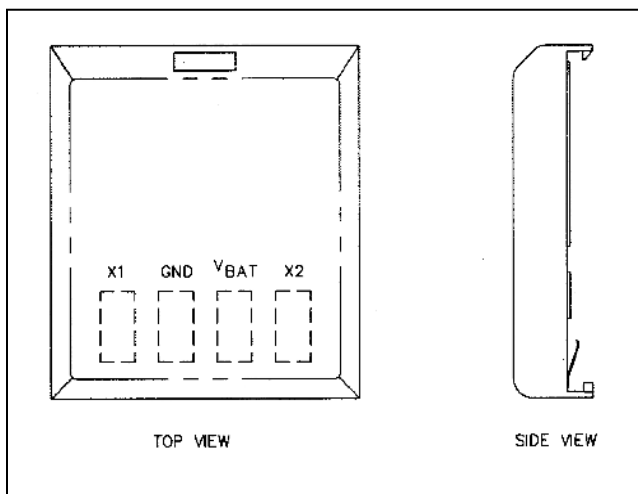
Load Capacitance: 6pF

### FEATURES

- Provides 10 Years of Battery Backup Power for Nonvolatile Timekeeping RAMs in the PowerCap Module Package (PCM)
- Snaps Directly Onto Surface-Mounted PowerCap Module Boards
- Detachment Feature Allows Easy Removal
- Compatible with these 34-Pin PowerCap Module Boards:

|             |               |
|-------------|---------------|
| DS1386P     | DS1553P/YP/WP |
| DS1486P     | DS1554P/YP/WP |
| DS1643P     | DS1556P/YP/WP |
| DS1644P     | DS1557P/YP/WP |
| DS1646P     | DS1744P/YP/WP |
| DS1647P     | DS1746P/YP/WP |
| DS1743P/WP  | DS1747P/YP/WP |
| DS1251YP/WP |               |
| DS1248YP/WP |               |
| DS1244YP/WP |               |

### PACKAGE INFORMATION



### PIN DESCRIPTION

| NAME             | FUNCTION                      |
|------------------|-------------------------------|
| X1, X2           | 32.768kHz Crystal Connections |
| V <sub>BAT</sub> | +3V Battery Output            |
| GND              | Ground                        |

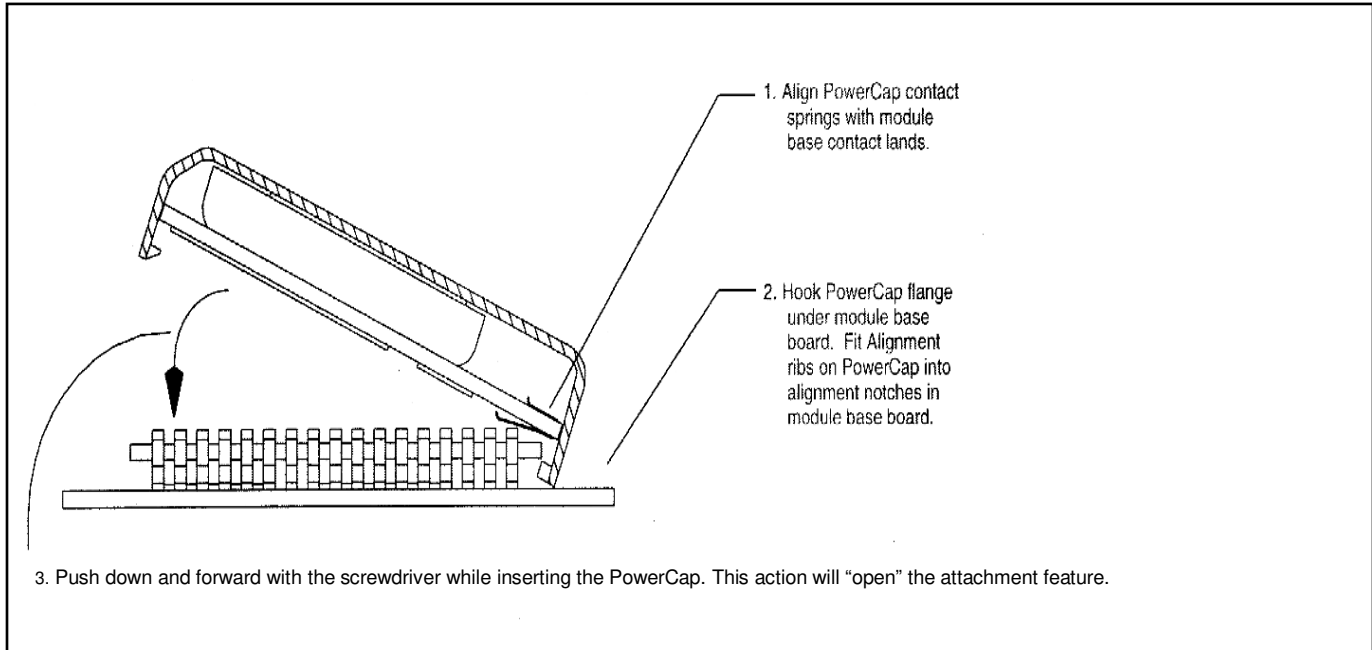
## ORDERING INFORMATION

| PART         | TEMP RANGE     | VOLTAGE (V) | PIN-PACKAGE | TOP MARK*  |
|--------------|----------------|-------------|-------------|------------|
| DS9034PCX+   | 0°C to +70°C   | 3.0         | PCM         | DS9034PCX  |
| DS9034I-PCX+ | -40°C to +85°C | 3.0         | PCM         | DS9034PCXI |

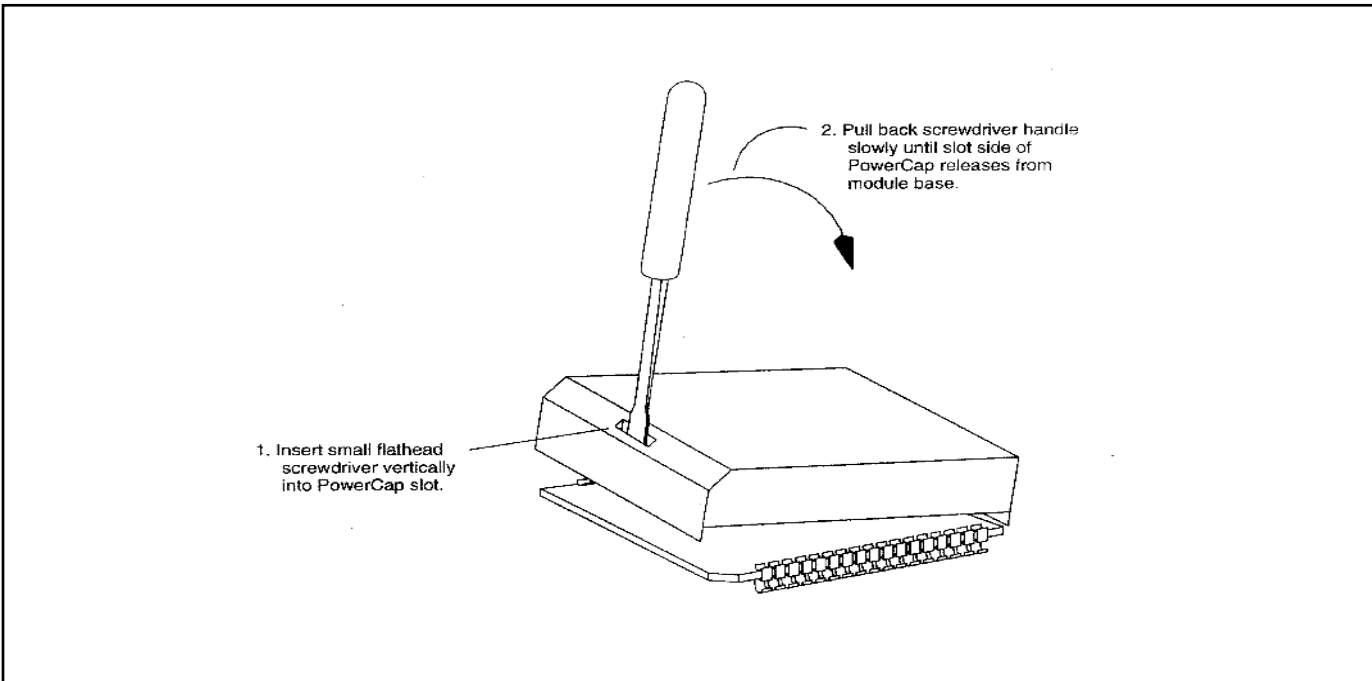
+Denotes a lead(Pb)-free/RoHS-compliant package.

\*A "+" on the top of the package indicates a lead(Pb)-free device.

## PowerCap ATTACHMENT AND REMOVAL

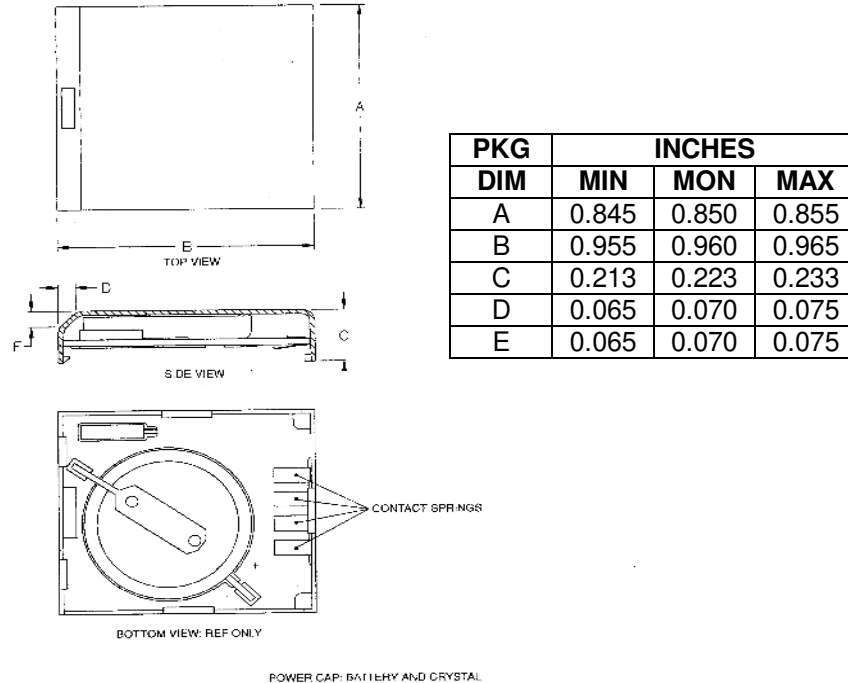


## PowerCap REMOVAL



## PACKAGE INFORMATION

For the latest package outline information and land patterns, go to [www.maxim-ic.com/packages](http://www.maxim-ic.com/packages). Note that a "+", "#", or "-" in the package code indicates RoHS status only. Package drawings may show a different suffix character, but the drawing pertains to the package regardless of RoHS status.



## ATTENTION: BATTERY COMPONENT

The DS9034PCX contains a lithium battery. Do not short, ground, or apply external voltages to the electrical portions of this device. Do not expose to temperatures over +85°C. Do not subject this device to any type of cleaning process. Store only in nonconductive containers. Failure to observe these precautions may result in battery discharge or decreased battery life.

**REVISION HISTORY**

| <b>REVISION<br/>DATE</b> | <b>DESCRIPTION</b>                                                                                                                                                                  | <b>PAGES<br/>CHANGED</b> |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 10/10                    | Updated the <i>Features</i> section to remove DS1543P/YP/WP from list of compatible PowerCap module boards, updated the <i>Ordering Information</i> table to remove leaded versions | 1, 2                     |