

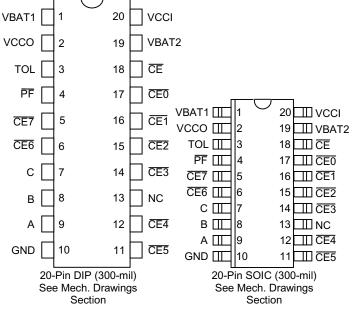
# DS1211 Nonvolatile Controller x 8 Chip

#### www.dalsemi.com

## **FEATURES**

- Converts full CMOS RAMs into nonvolatile memories
- Unconditionally write protects when V<sub>CC</sub> is out of tolerance
- Automatically switches to battery when power-fail occurs
- 3 to 8 decoder provides control for up to eight CMOS RAMs
- Consumes less than 100 nA of battery current
- Tests battery condition on power-up
- Provides for redundant batteries
- Power-fail signal can be used to interrupt processor on power failure
- Optional 5% or 10% power-fail detection
- Optional 20-pin SOIC surface mount package
- Optional industrial temperature range of -40°C to +85°C

# PIN ASSIGNMENT



### PIN DESCRIPTION

<u>A,</u> B, C	- Address Inputs
CE	- Chip Enable Input
CE0 - CE7	- Chip Enable Outputs
GND	- Ground
$V_{BAT1}$	- + Battery 1
$V_{BAT2}$	- + Battery 2
TOL	- Power Supply Tolerance
$V_{CCI}$	- +5V Supply
$V_{CC0}$	- RAM Supply
PF	- Power-fail
NC	- No Connection

## **DESCRIPTION**

The DS1211 Nonvolatile Controller x 8 Chip is a CMOS circuit which solves the application problem of converting CMOS RAMs into nonvolatile memories. Incoming power is monitored for an out-of-tolerance condition. When such a condition is detected, the chip enables are inhibited to accomplish write protection and the battery is switched on to supply RAMs with uninterrupted power. Special circuitry uses a low-leakage CMOS process which affords precise voltage detection at extremely low battery consumption.

By combining the DS1211 nonvolatile controller/decoder chip and lithium batteries, nonvolatile RAM operation can be achieved for up to eight CMOS memories.

See the data sheet for the DS1212 Nonvolatile Controller x 16 Chip for electrical specifications and operation.

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