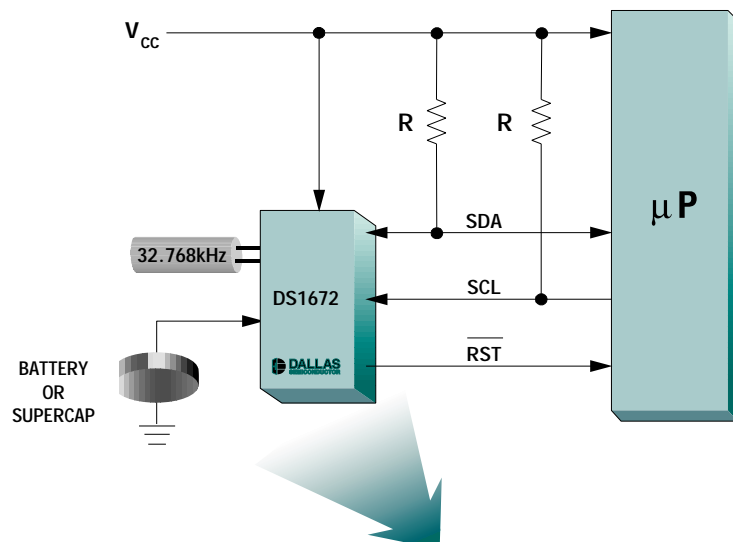


WORLD'S FIRST ULTRA-LOW-VOLTAGE RTC WITH CPU RESET AND POWER SWITCHING

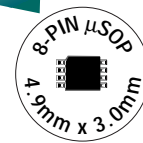
RTC Operates Down to 1.3V, Consumes Less Than 1µA

The DS1672 is the first ultra-low-voltage real-time clock (RTC) with power monitor circuitry and power-fail switches. Communicating with a processor over a 2-wire interface, the 32-bit counter counts seconds, from which a software algorithm computes time-of-day, date, month, and year. The DS1672 monitors V_{CC} and, when a power-fail occurs, it write-protects timekeeping data registers, resets the processor, and switches to backup power to prevent data corruption. In low-power mode, the oscillator maintains timekeeping down to 1.3V, consuming less than 1µA of current. When V_{CC} returns to nominal conditions, the DS1672 holds the processor in reset for 250ms while operating conditions stabilize. An optional trickle charge circuit is available for time and date backup with a super cap or rechargeable battery.

- ◆ 32-Bit Counter Increments Once per Second
- ◆ 2-Wire Serial Interface
- ◆ Backup Power Supply Input
- ◆ Trickle Charger
- ◆ RTC Operates Down to 1.3V
- ◆ 1µA (Max) Battery Current
- ◆ Power-On Reset Output
- ◆ Automatic Power-Fail Detect and Switch Circuitry
- ◆ UL-Recognized (File Number E99151)



PART	V _{CC} SUPPLY VOLTAGE (V)	TEMPERATURE RANGE	8-PIN PACKAGE
DS1672-2	+1.8 to +2.2	-40°C to +85°C	DIP, SOIC, µSOP
DS1672-3	+2.7 to +3.3	-40°C to +85°C	DIP, SOIC, µSOP
DS1672-33	+2.97 to +3.63	-40°C to +85°C	DIP, SOIC, µSOP



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