

## WTC3243 HB Battery-powered Temperature

- ▶ Operates with 3.6 V Lithium-Ion battery
- ▶ Ultrastable PI Control
- ▶ Drive  $\pm 2.2\text{A}$  of TEC or RH current
- ▶ Linear Stability:  $0.0009^\circ\text{C}$
- ▶ Small size: 1.3" x 1.28" x 0.313"
- ▶ Heat and cool current limits
- ▶ Supports Thermistors, RTDs, IC sensors
- ▶ Single supply operation: +3.3 to +8 V
- ▶ Adjustable sensor bias current
- ▶ 14 pin DIP PCB mount



**Supply Range:** +3.3 to +8 V

**Temperature Control Output Current:** up to  $\pm 2.2\text{ A}$

**Temperature Stability:**  $0.0009^\circ\text{C}$  (10 k $\Omega$  thermistor at  $25^\circ\text{C}$ ) over one hour

**Stability across ambient:**  $0.002^\circ\text{C}$  (10 k $\Omega$  thermistor at  $25^\circ\text{C}$ ) over an hour ---- Ideal for scanning applications

**Setpoint vs. Actual Temperature Accuracy:** 2 mV typical

### Features:

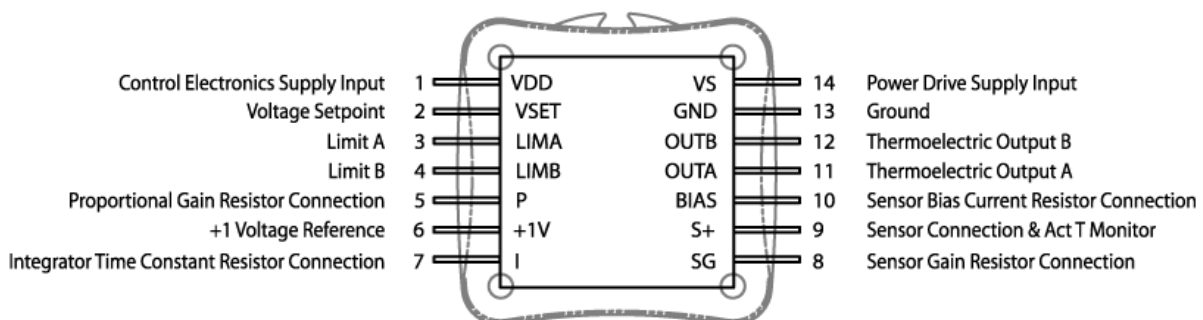
- Heat and Cool Current Limits
- PI controller minimizes overshoot and time to temperature
- Compatible with multiple sensors
- Adjustable sensor bias current optimizes sensor feedback voltage
- Can operate with unipolar current for Resistive Heaters

**Maximum Power Dissipation:** 9 W

**Heatspreader Temperature Rise:**  $30^\circ\text{C} / \text{W}$  without external heatsinking

**14 pin DIP PCB Mount size:** 33 mm x 32 mm x 8 mm

### WTC3243 Temperature Controller Pinout - Top View



**NOTE:** The WHY5640 and WTC3243 do NOT have the same pin configuration.