

## Sensing Elements

### RTH44 MIL-PRF-23648/20

#### Engineering Information:

- NTC thermistor
- Operating temperature range: -55°C to 125°C
- Standard resistance range at 25°C: 300 to 500k ohms
- Power rating: 0.200 W at 25°C, derate to 0 W at 125°C
- Thermal time constant: 25 seconds max in still air
- Dissipation constant: 2 mW/°C min in still air
- Curves: A, B, C
- Tolerances: 1%, 2%, 5%, 10%



#### Applications:

- Temperature measurement and control
- Amplifier stabilization
- Power control
- Microprocessor interfacing

#### Series Information:

QTI's RTH44 MIL-PRF-23648/20 specified precision NTC Thermistor meets or exceeds all of the requirements of MIL-PRF-23648. It is certified by the Defense Logistics Agency, Qualified Products List QPL-23648. These high-rel, military grade PTC precision thermistor are suitable for critical applications where temperature control/compensation is required.

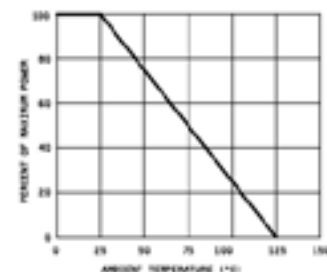
#### Aerospace and Defense Overview:

QTI maintains an extensive test laboratory, designed with defense and aerospace customers in mind. This test lab is ISO 9001:2008 and AS9100 Revision B certified. We are qualified to perform all tests dictated by the Department of Defense, Defense Logistics Agency MIL-PRF-23648, and MIL-PRF-32192 specifications. In addition we have the facilities to perform many of the tests specified in MIL-STD-202, MIL-STD-883, NASA Goddard S-311-P-18 and S-311-P-827, EEE-INST-002, TOR-2006, ESA 4006, and MIL-PRF-38534 Class K and H Element Evaluation tests.

**Resistance Temperature Characteristic Factors**

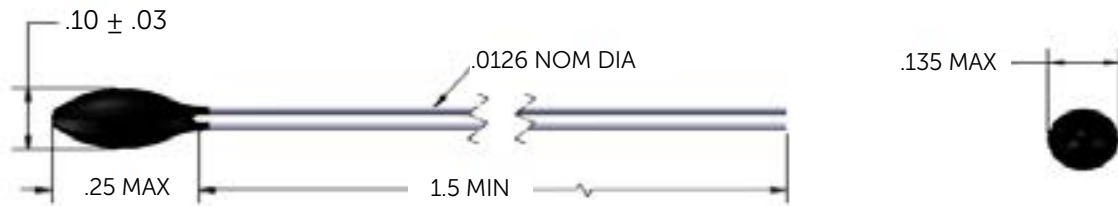
Temperature (°C)	RATIO 19.8 (A)	RATIO 29.4 (B)	RATIO 48.7 (C)
-55	54.780	100.000	-
-15	5.7770	7.380	8.800
0	2.8580	3.270	3.660
25	1.000	1.000	1.000
50	0.4045	0.360	0.3200
75	0.1841	0.148	0.1160
100	0.0923	0.0675	0.0470
125	0.0504	0.0340	0.0205

**PTC Figure: Derating Curve**



## Sensing Elements

### RTH44 MIL-PRF-23648/20 Specifications



## QTI Sensing Solutions

2108 Century Way Boise, Idaho 83709 USA

T: (208) 377-3373, 800-554-4784

F: (208) 376-4754

qtisales@ctscorp.com

www.qtisensing.com

QTI is the unparalleled leader in world-class temperature sensing technology with over 40 years of proven expertise for the most demanding customers in the world. We custom-engineer the industry's most reliable temperature sensors for mission-critical applications. As a true business partner, we deliver beyond the products we make as we relentlessly pursue excellence in everything we do.

Contact us to discuss your temperature sensing needs today.